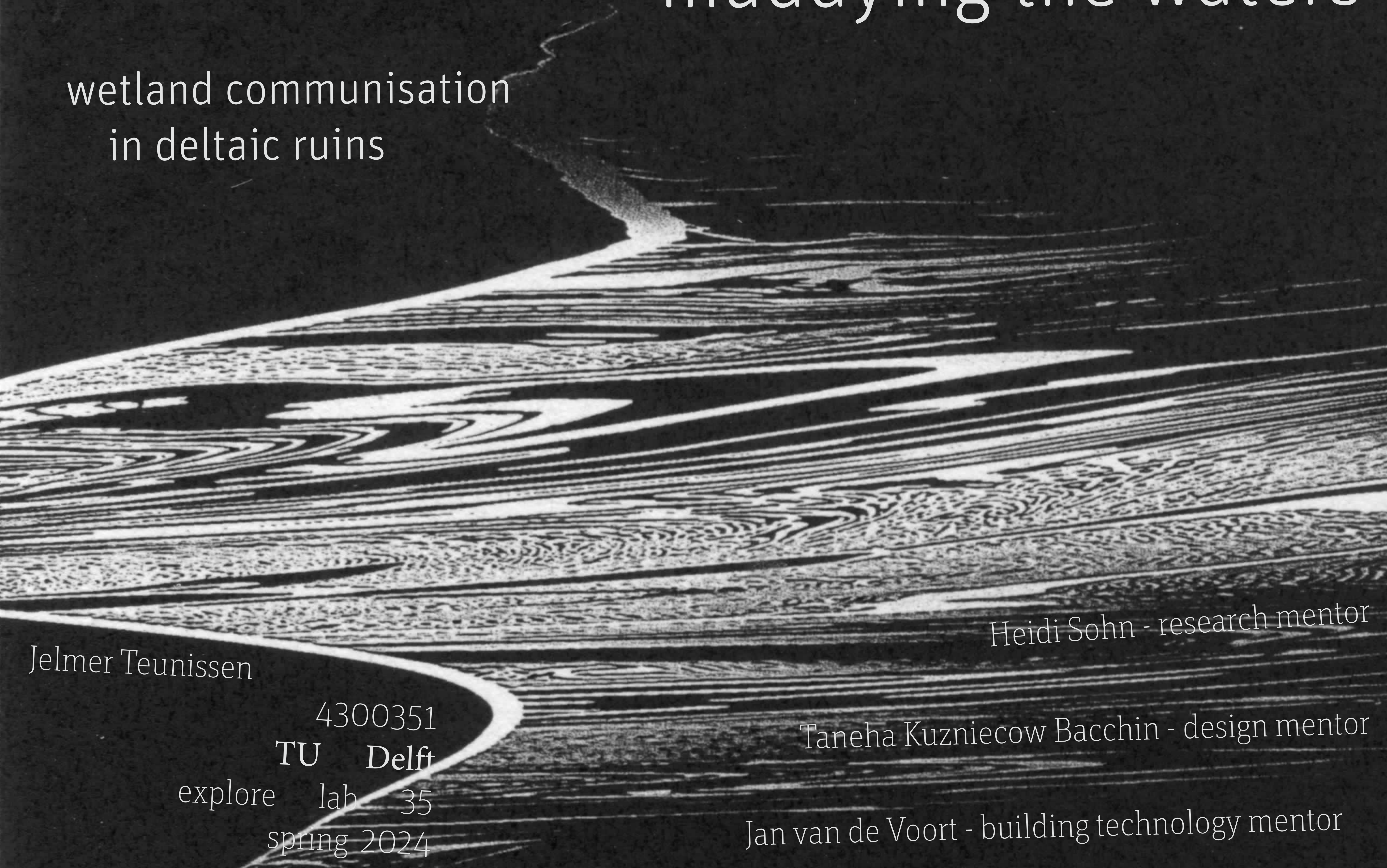


muddying the waters

wetland communisation
in deltaic ruins

Jelmer Teunissen

4300351

TU Delft

explore lab 35

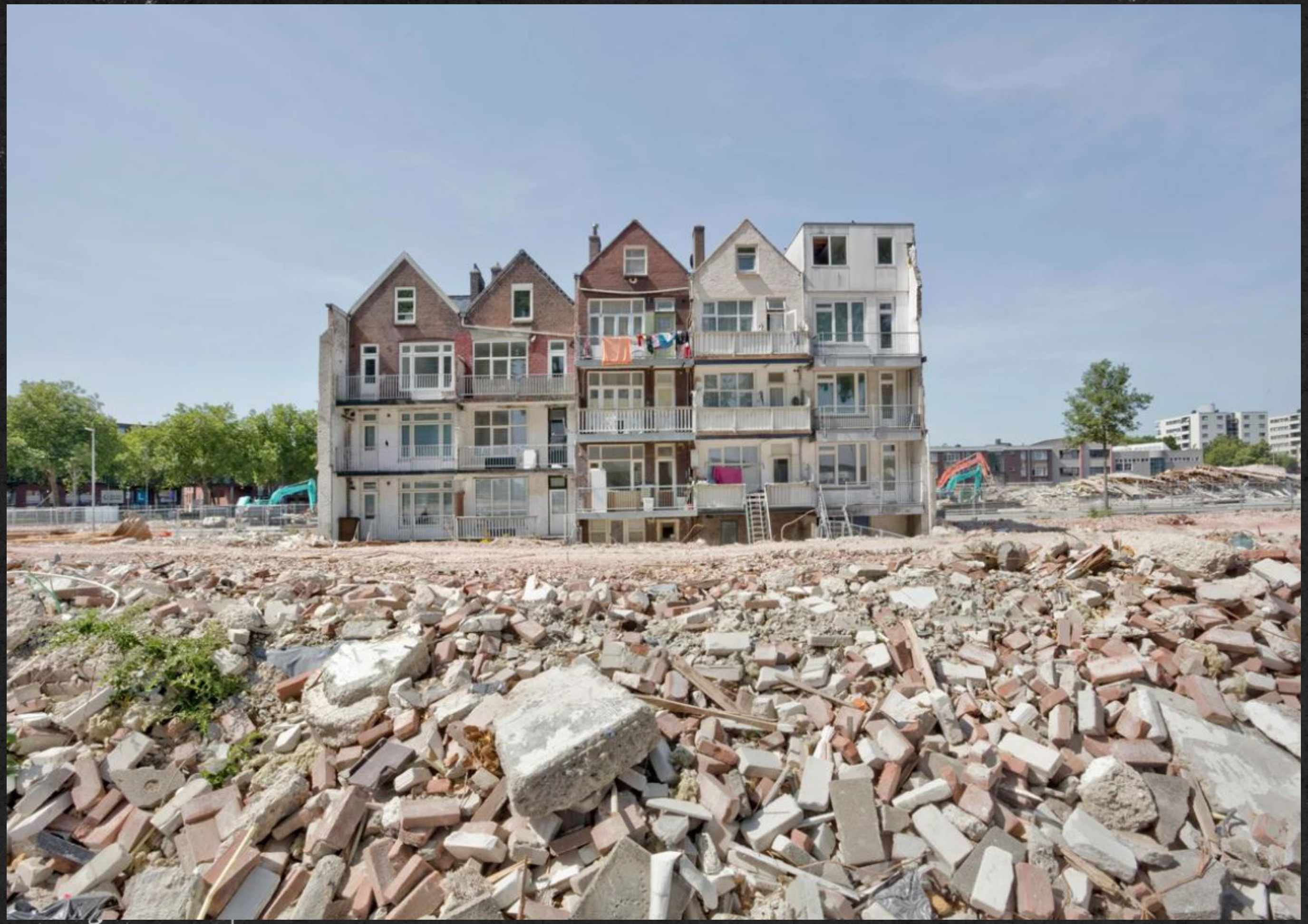
spring 2024

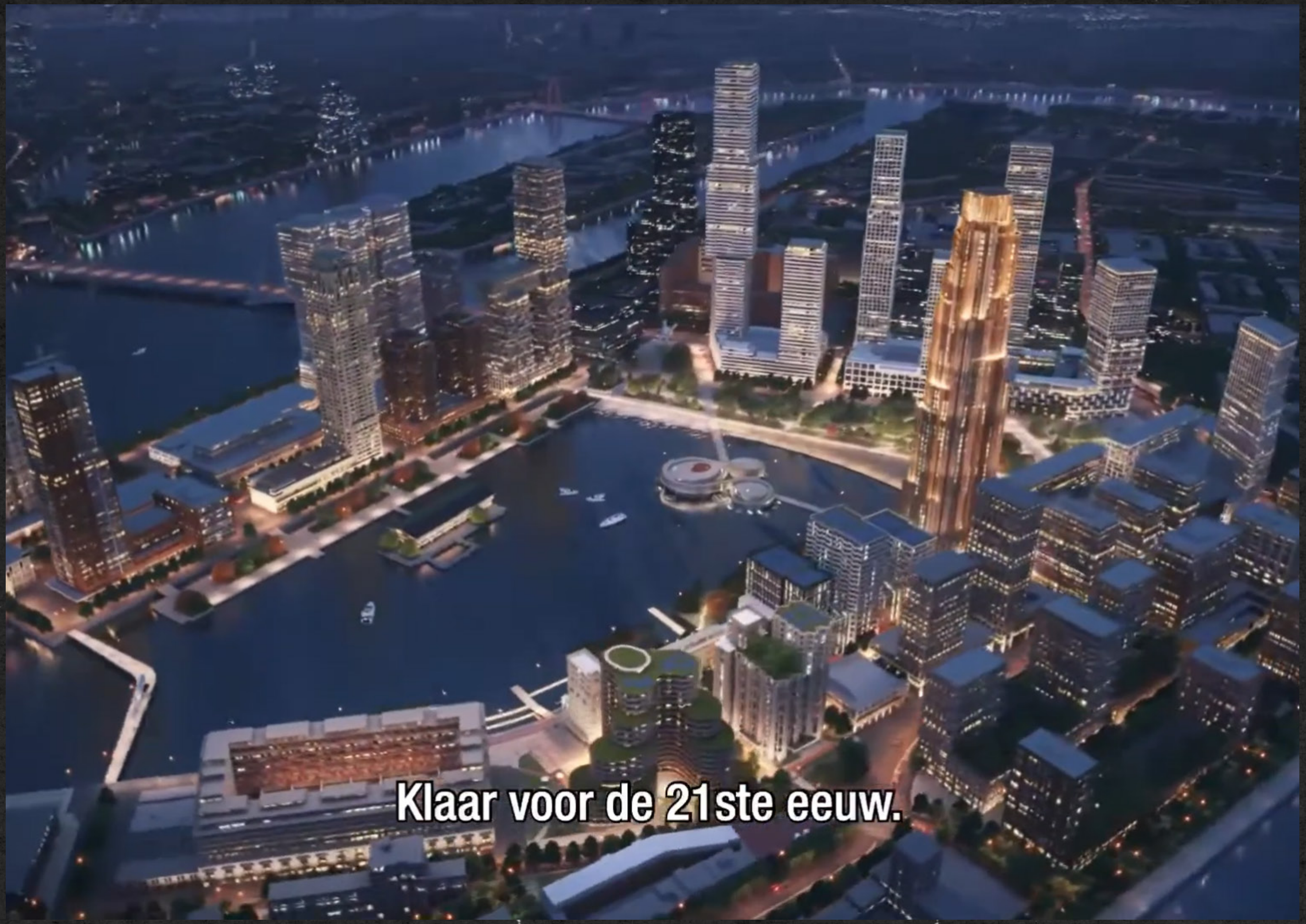
Heidi Sohn - research mentor

Taneha Kuzniecow Bacchin - design mentor

Jan van de Voort - building technology mentor

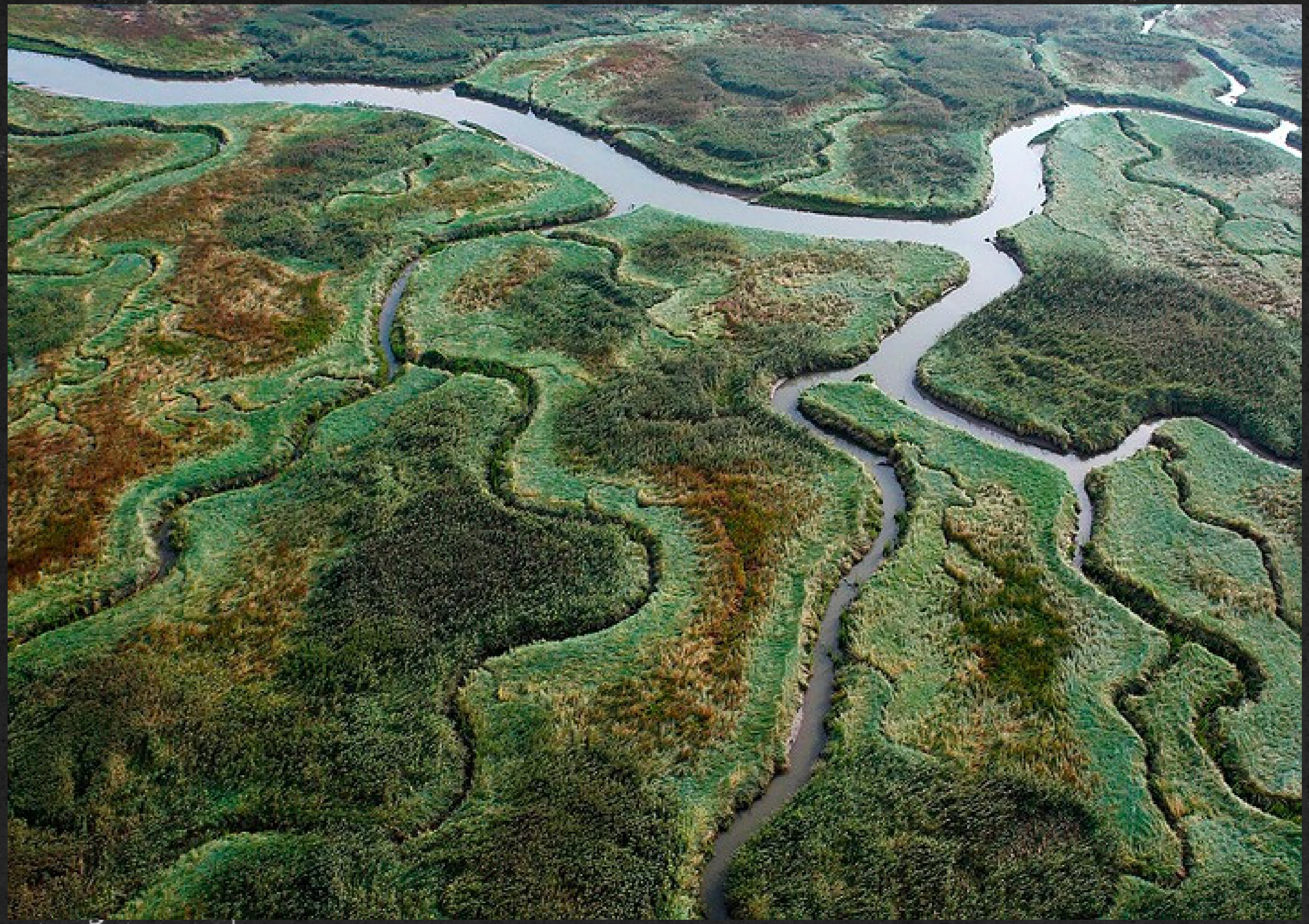
provocation

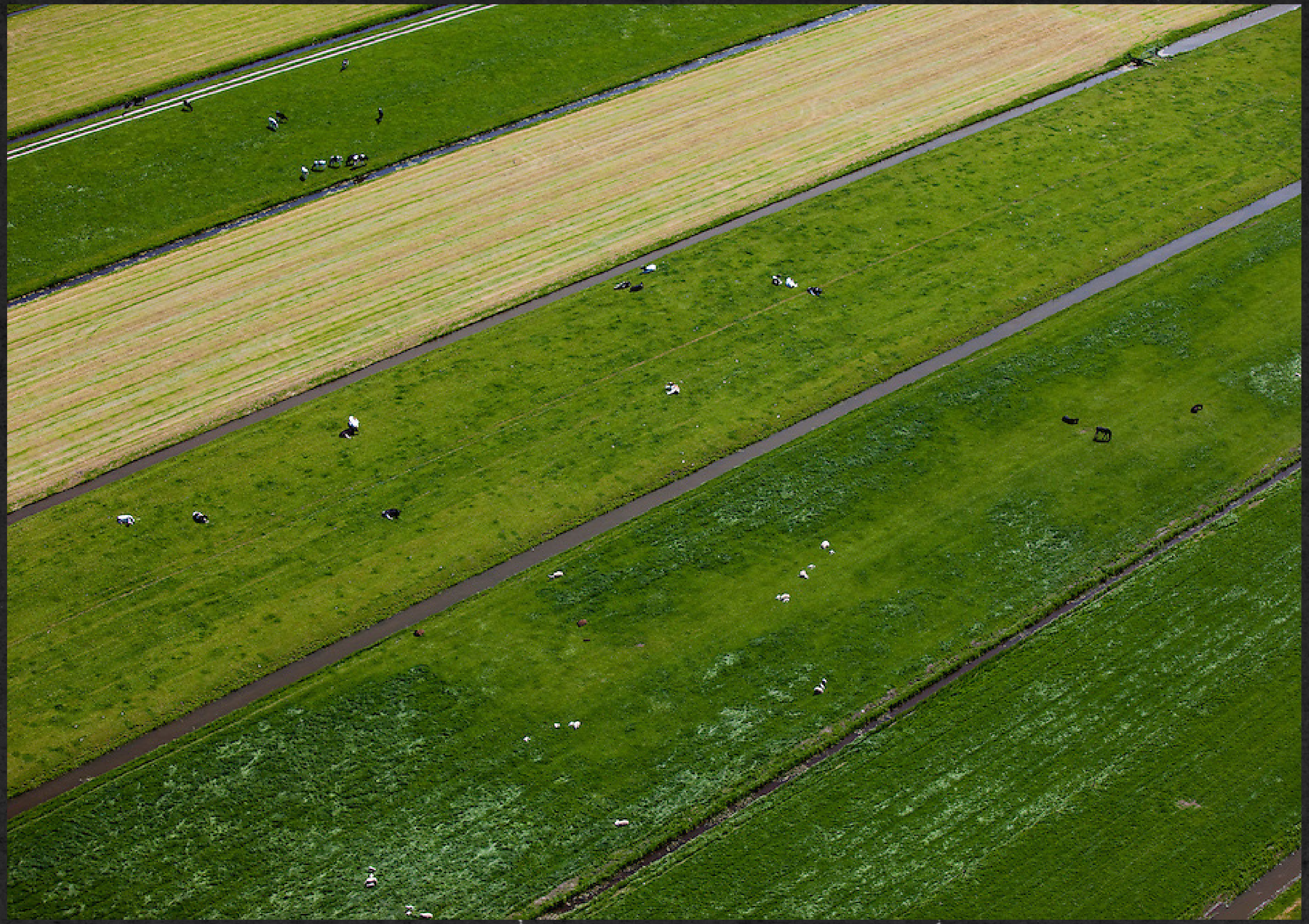




Snoek, O. (2022). *Sloopwerkzaamheden in de Tweebosbuurt te Rotterdam-Zuid* [Photograph]. Trouw. https://www.trouw.nl/binnenland/de-sloop-werd-per-brief-aangekondigd-in-rotterdam-is-de-sloopkogel-sterker-dan-het-spandoek~bcfdaf51/
Red Company. (2020, December 8). *The Codrico Terrain by Powerhouse Company* [Rendered video still]. A As Architecture. https://www.youtube.com/watch?v=WLr1XCiPW6A&ab

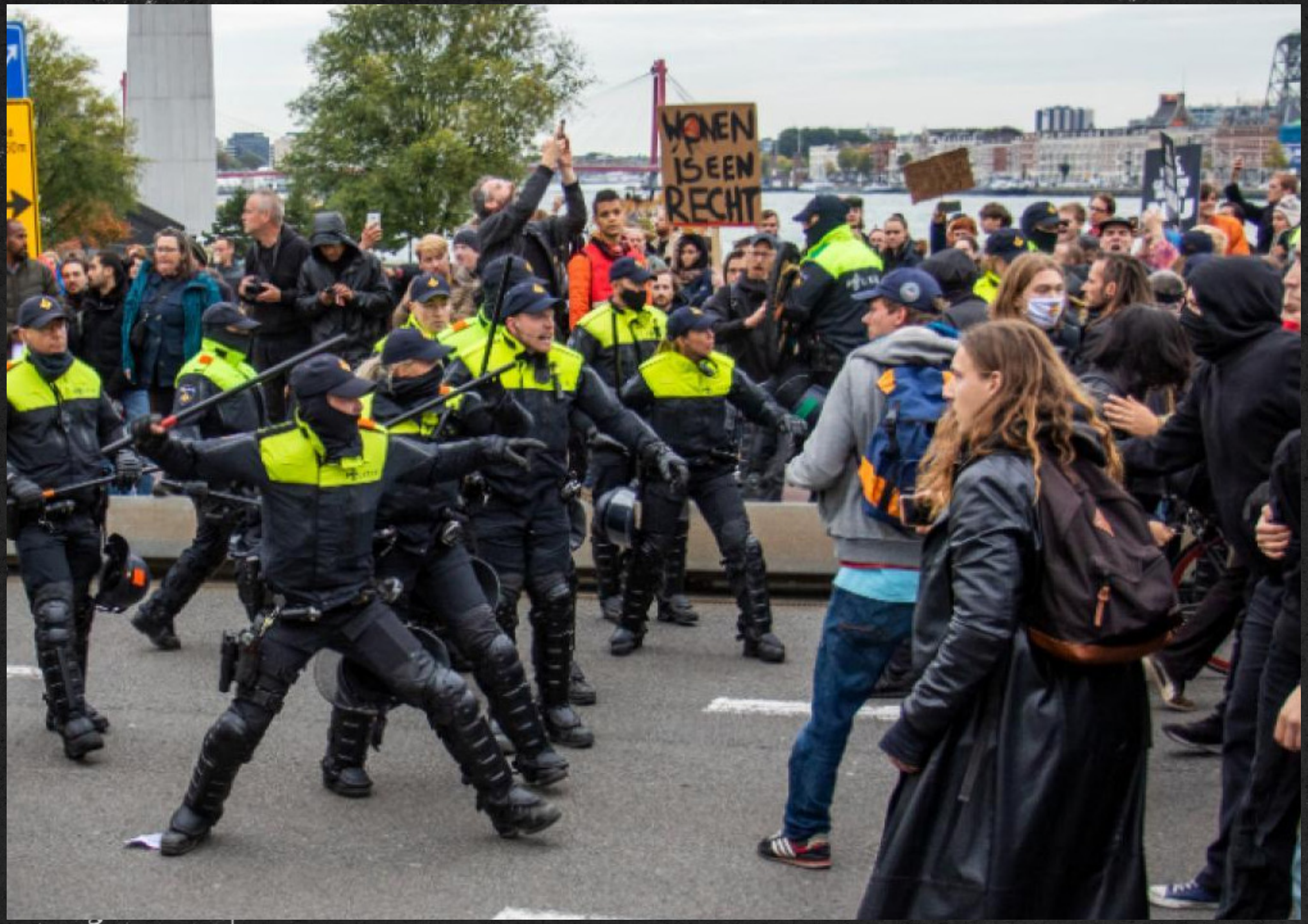
provocation

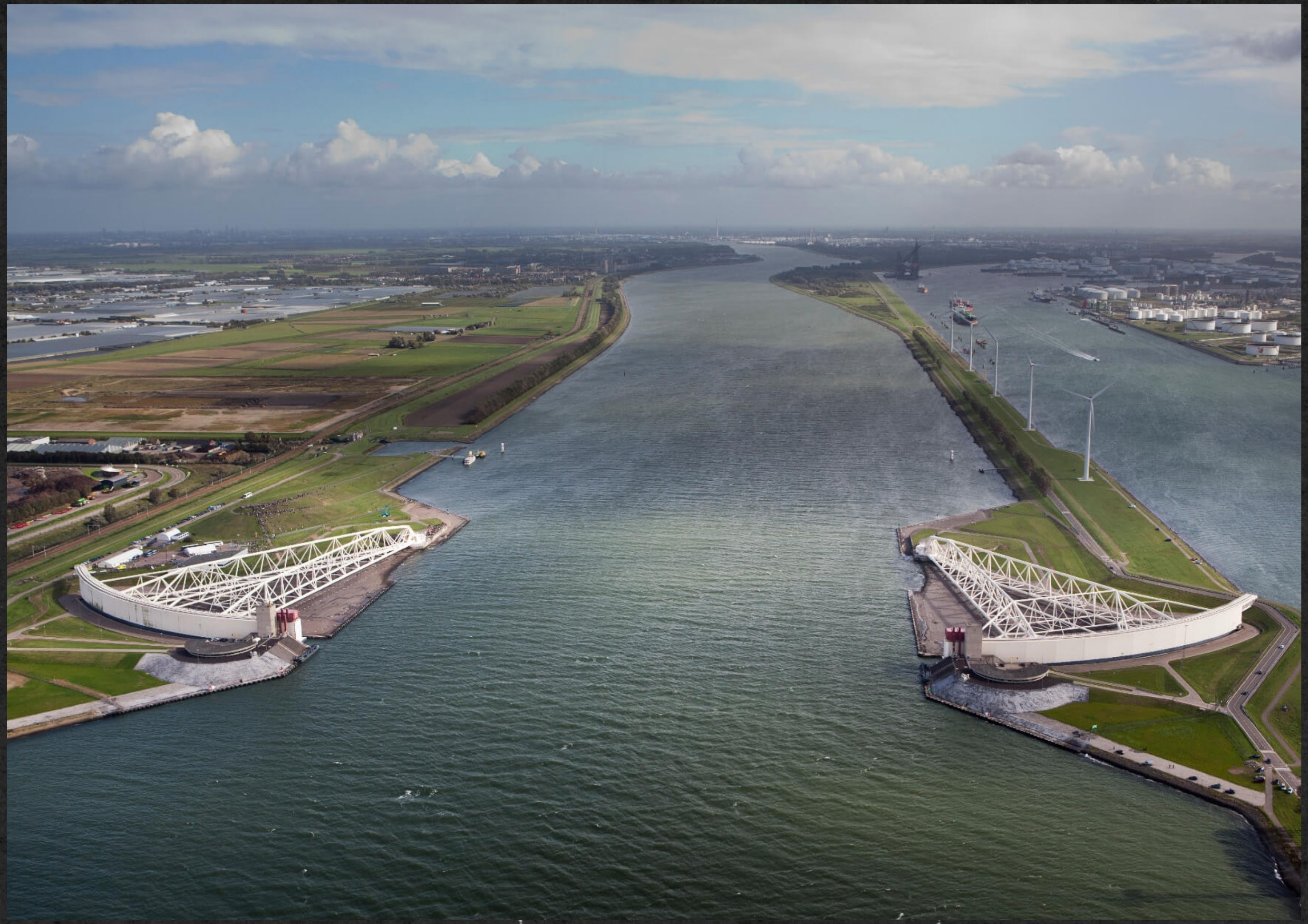




Pattyn , W. (n.d.). ***Drowned Land of Saeftinghe*** [Photograph]. Landschapvzw. https://www.landschapvzw.be/sites/default/files/styles/image_large/public/photographers/Land-van-Saeftinghe.jpg?itok=JmDdeJ8T
Swart, S. (2019, December 5). *Polder Zevenhoven met grazende Holsteiner koeien in het weiland, Zuid-Holland, Nederland* [Photograph]. https://www.siebeswart.nl/image/I0000L9pBGfi_3RM

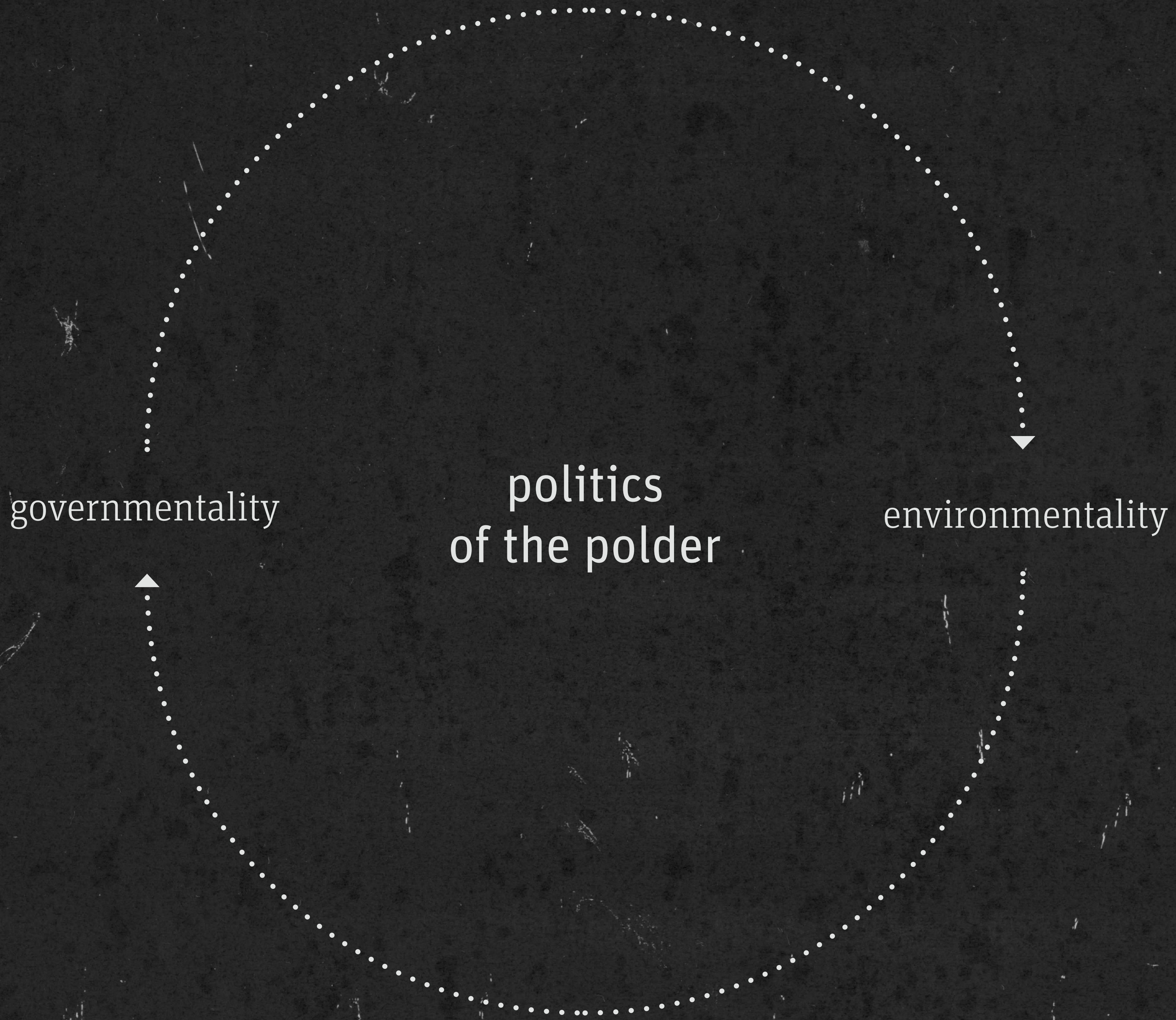
provocation





District8. (2021, October 17). *Woonprotest loopt uit de hand, ME grijpt in Erasmusbrug Rotterdam* [Photograph]. District8. https://district8.net/woonprotest-loopt-uit-de-hand-me-grijpt-in-erasmusbrug-rotterdam.html
Rijkswaterstaat. (n.d.). *Maeslantkering* [Photograph]. https://media.nu.nl/m/ln0xO1qal0dt_wd854/maeslantkering.jpg

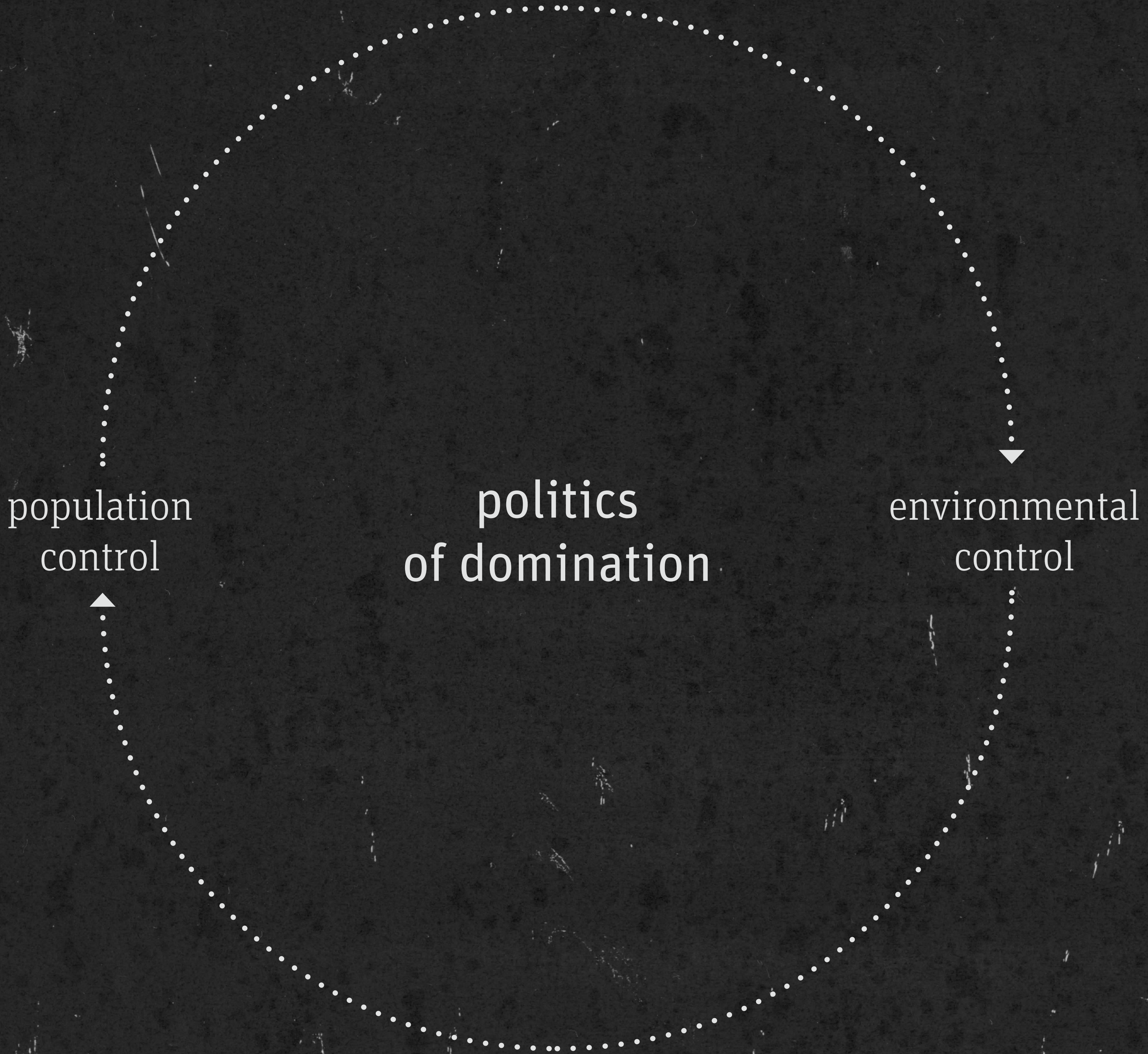
preliminary research



governmentality

politics
of the polder

environmentality



politics
of domination

population
control

environmental
control

problem statement

How to contend with the complexities at the intersections
of socio-spatial and socio-environmental violence
in Rotterdam’s *urban political ecology* as an architect?

What are ways to struggle-as-architect against this systemic violence
—and for collective liberation—
as systemic limits are increasingly transgressed?

What positionalities would afford socio-spatial designers and architectural workers
the possibility to radically reclaim architectural practice and the architectural project
as a site of struggle rather than a form of complicity in this violent system?

problem statement

> “[...] the question is not how architectural criticism serves architecture,
>
> but how architecture itself becomes **a medium for critical activity**”

Ecologies of Architecture Research Group. (2020, February). *The Axiology of Architecture: Rules, Norms and Architectural Values* [Open call PhD candidates]. https://www.tudelft.nl/bk/over-faculteit/afdelingen/architecture/organisatie/groepen/architecture-philosophy-and-theory/research-publications/the-axiology-of-architecture

problem statement

how can
architectural critique
serve architecture?

response-ability

→

how can architecture itself
become a medium
for critical activity?

Ecologies of Architecture Research Group. (2020, February). *The Axiology of Architecture: Rules, Norms and Architectural Values* [Open call PhD candidates]. https://www.tudelft.nl/bk/over-faculteit/afdelingen/architecture/organisatie/groepen/architecture-philosophy-and-theory/research-publications/the-axiology-of-architecture

problem statement

Response-ability is:

‘the capacity and praxis of care for the worlds we co-inhabit’;

‘to respond responsibly in ongoing multispecies *worlding* on a wounded terra’.

Haraway, D. J. (2016). *Staying with the trouble: Making kin in the Chthulucene* (p. 105). Duke University Press.
Doucet, I. (2019, September). *Anticipating Fabulous Futures*. E-flux. https://www.e-flux.com/architecture/overgrowth/284918/anticipating-fabulous-futures/

research questions

How could re-thinking, -feeling, and -doing relationships of human inhabitation of the Rhine-Meuse-Scheldt estuary and its repressed wetland ecologies afford response-ability to architectural positions, approaches, and projects?

How could *string figuring* with *figurations of wetness* afford a thinking-feeling the world through connections rather than divisions, and as such, afford relating differently to the futurity of inhabiting the northern Rhine-Meuse-Scheldt estuary and *stay with the trouble* on an irreversibly wounded terra?

How could an architectural project of *speculatively fabulating wetter futures* act as a *resonance chamber* for ways of connecting differently, resisting collaboratively, and of survivance in deltaic ruins?

research questions

resonance chambers:

“imagine life after growth
in ways that are radical yet pragmatic,
political and visionary,
as well as context-specific and feasible;

aid in the struggle for liberation
by ‘producing repercussions’
rather than representations;

create possibilities to practise solidarity
between different groups
affected by the same dominating power.
in different ways”

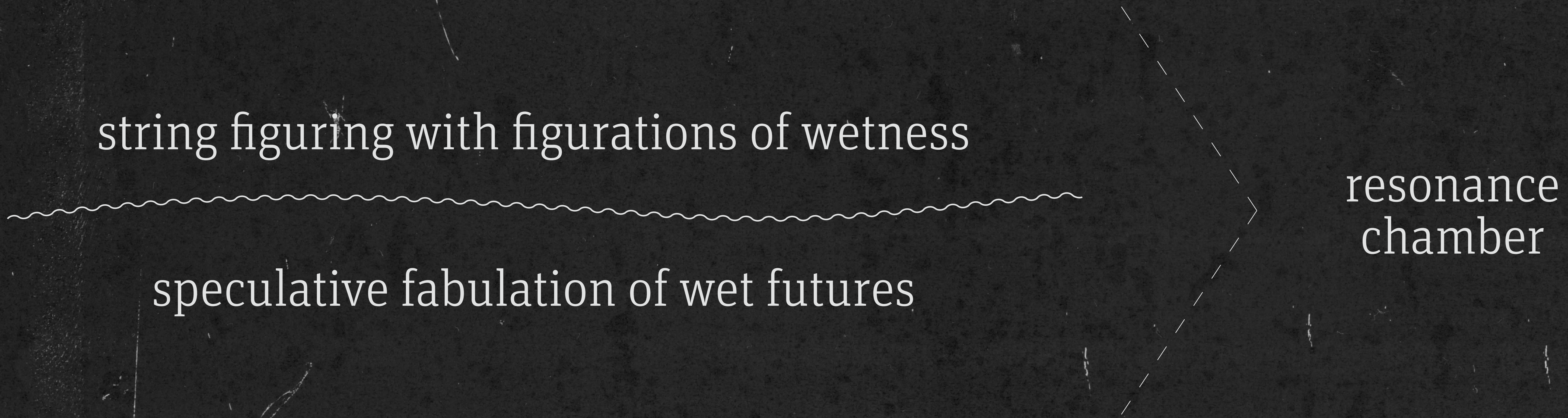
Doucet, I. (2019, September). *Anticipating Fabulous Futures*. E-flux. https://www.e-flux.com/architecture/overgrowth/284918/anticipating-fabulous-futures/
Stengers, I. (2015). I*n catastrophic times: Resisting the coming barbarism*. Open Humanities Press.

research

design

string figuring with figurations of wetness

speculative fabulation of wet futures



string figuring with figurations of wetness

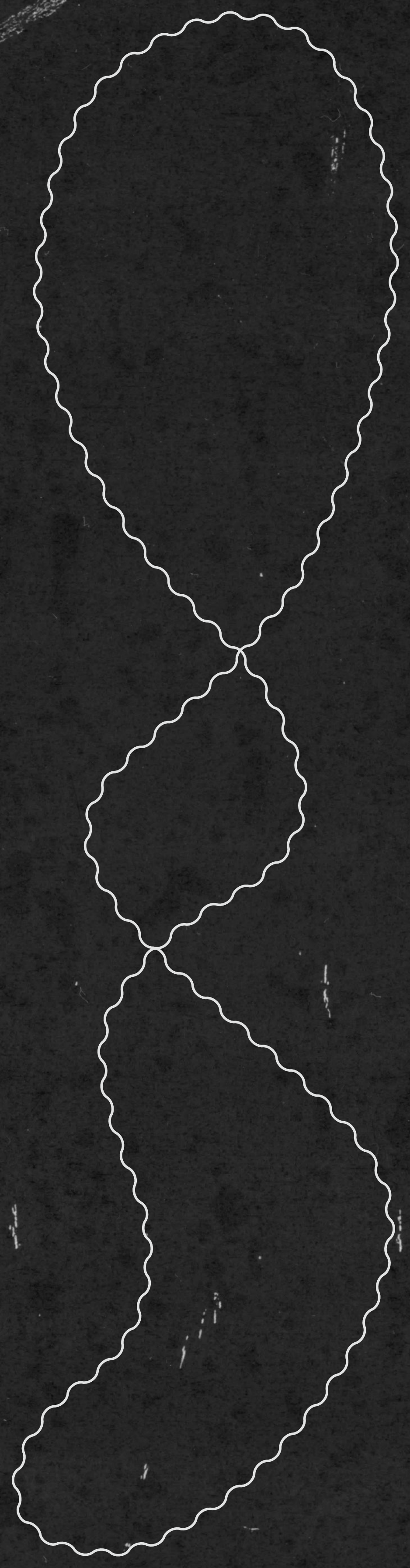
speculative fabulation of wet futures

resonance
chamber

research methods - string figuring

“the string figure is a method of tracing:

following the threads where they lead
and finding their tangles and patterns
crucial for staying with the trouble
in real and particular places and times”

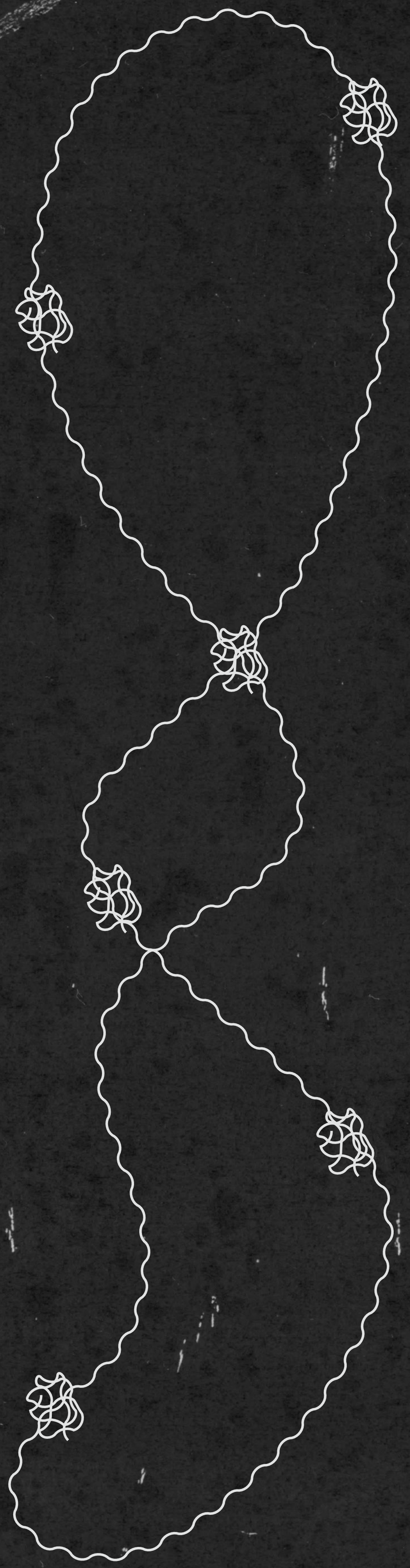


Haraway, D. J. (2016). *Staying with the trouble: Making kin in the Chthulucene* (p. 3). Duke University Press.

research methods - figurations

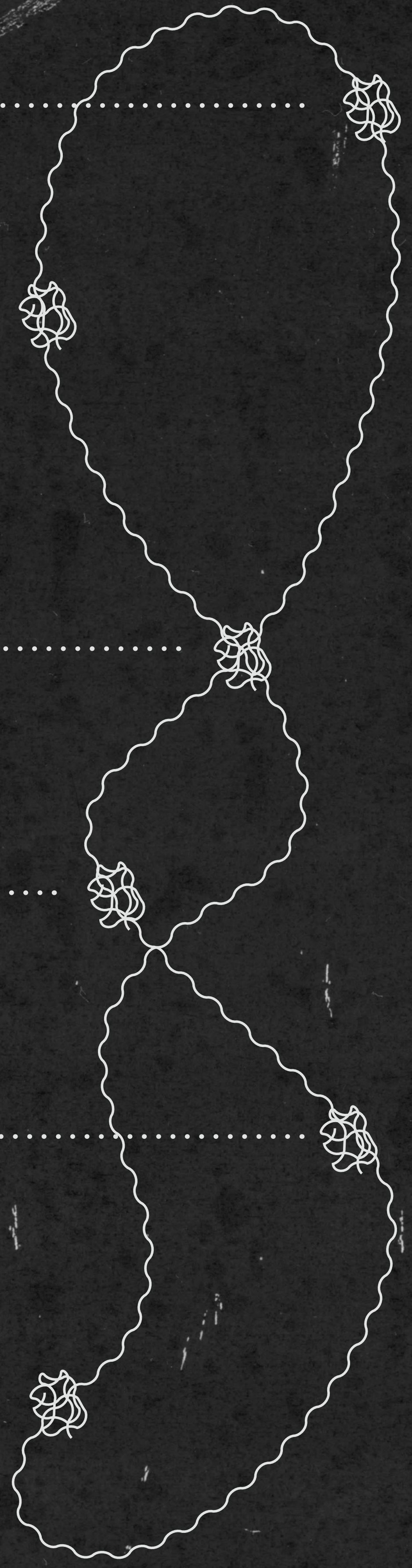
“Figurations are embodied concepts,
or ‘material-semiotic’ knots,
with both a conceptual power and worldliness […]”
(Haraway, 2013, p.5)

“[…] that acknowledge
concretely situated historical positions.”
(Braidotti, 2011, p. 10)



Haraway, D. J. (2013). *When species meet* (p. 4). University of Minnesota Press.
Braidotti, R. (2011), *Nomadic Subjects* (p. 10). Columbia.

research methods - string figuring with figurations of wetness



a genealogy of the polder

exorcising the dutch poldergeist
with the spectre of inundation

(re)making kin with other deltaic life forms

‘jutten’ (beach-combing)

holdings of wetness

research methods - string figuring with figurations of wetness

methods

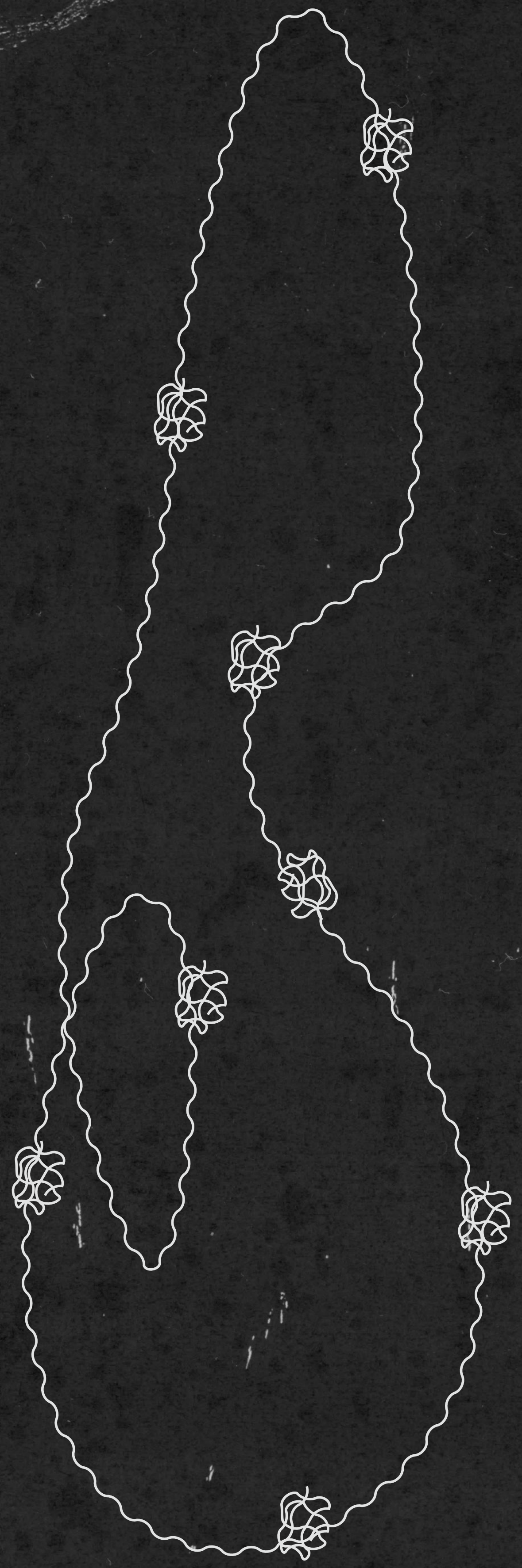
images

texts

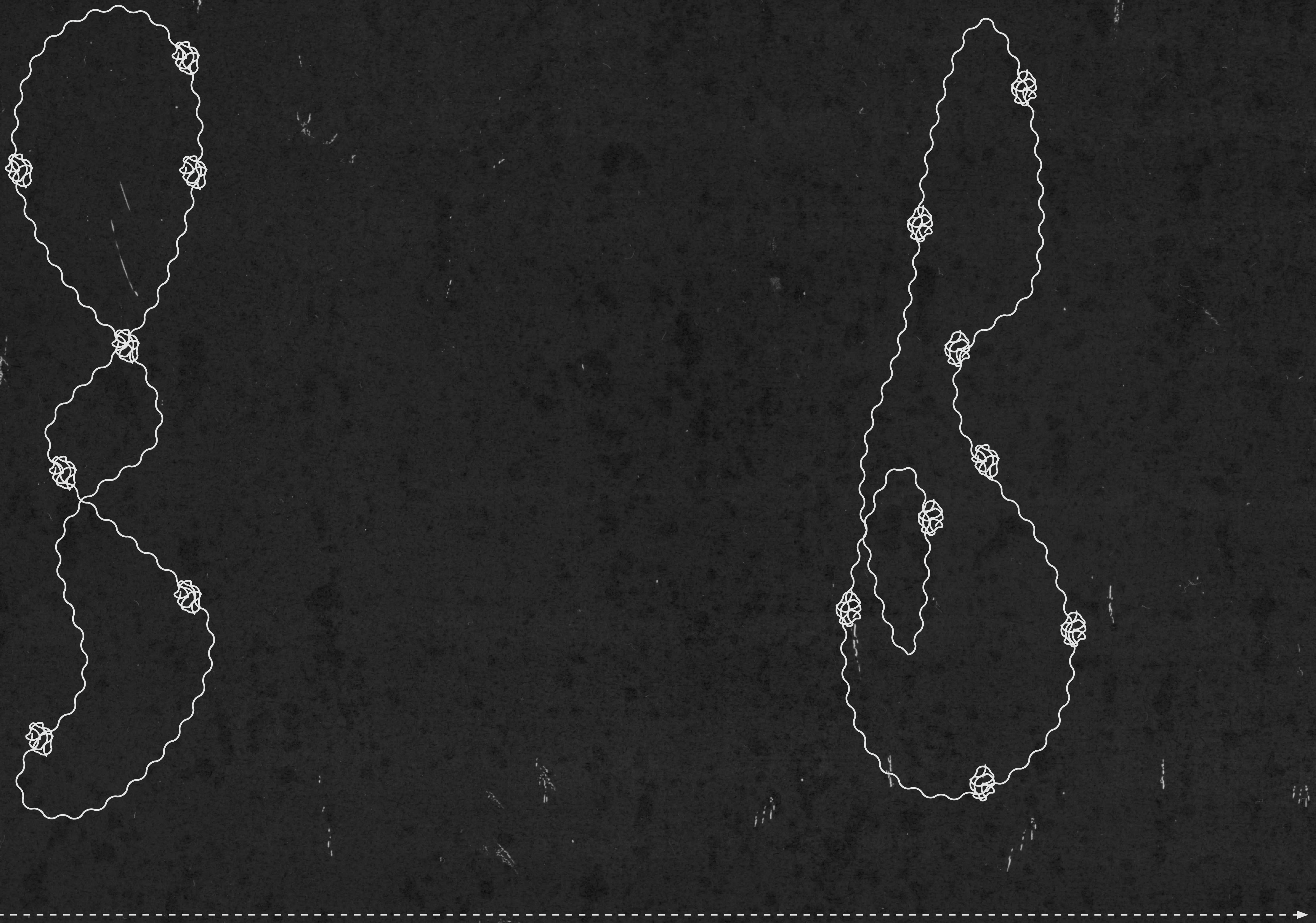
research methods - string figuring with figurations of wetness

a curatorial process of arranging findings
according to patternings in the string figure
into a partial and incomplete assemblage
of texts and images

a research that picks at
the socio-spatial,
material-discursive,
politico-environmental threads
of the poltics of the polder



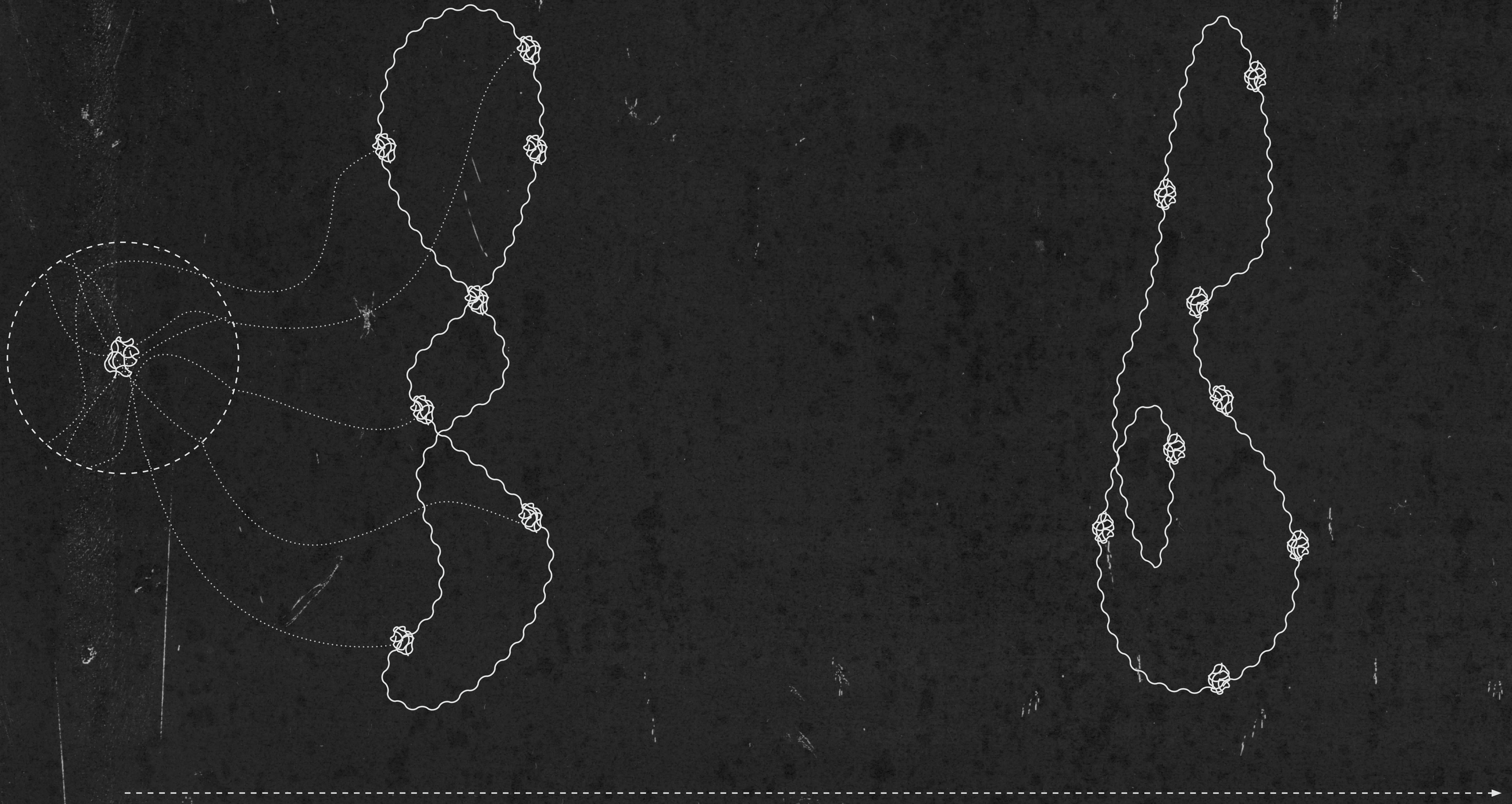
research methods - string figuring with figurations of wetness



initial
figurations

refiguring

research methods - string figuring with figurations of wetness

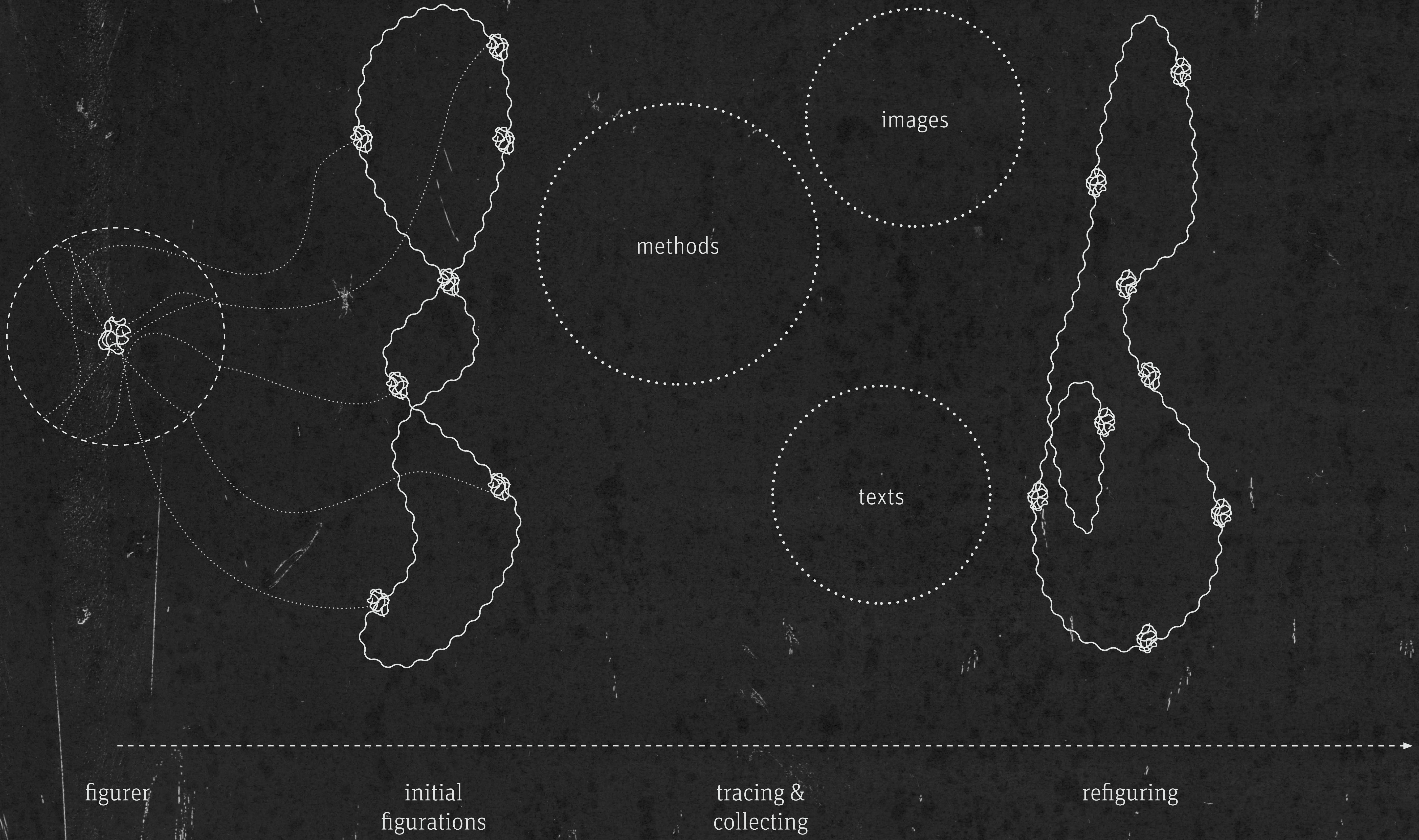


figurer

initial
figurations

refiguring

research methods - string figuring with figurations of wetness



methods

images

texts

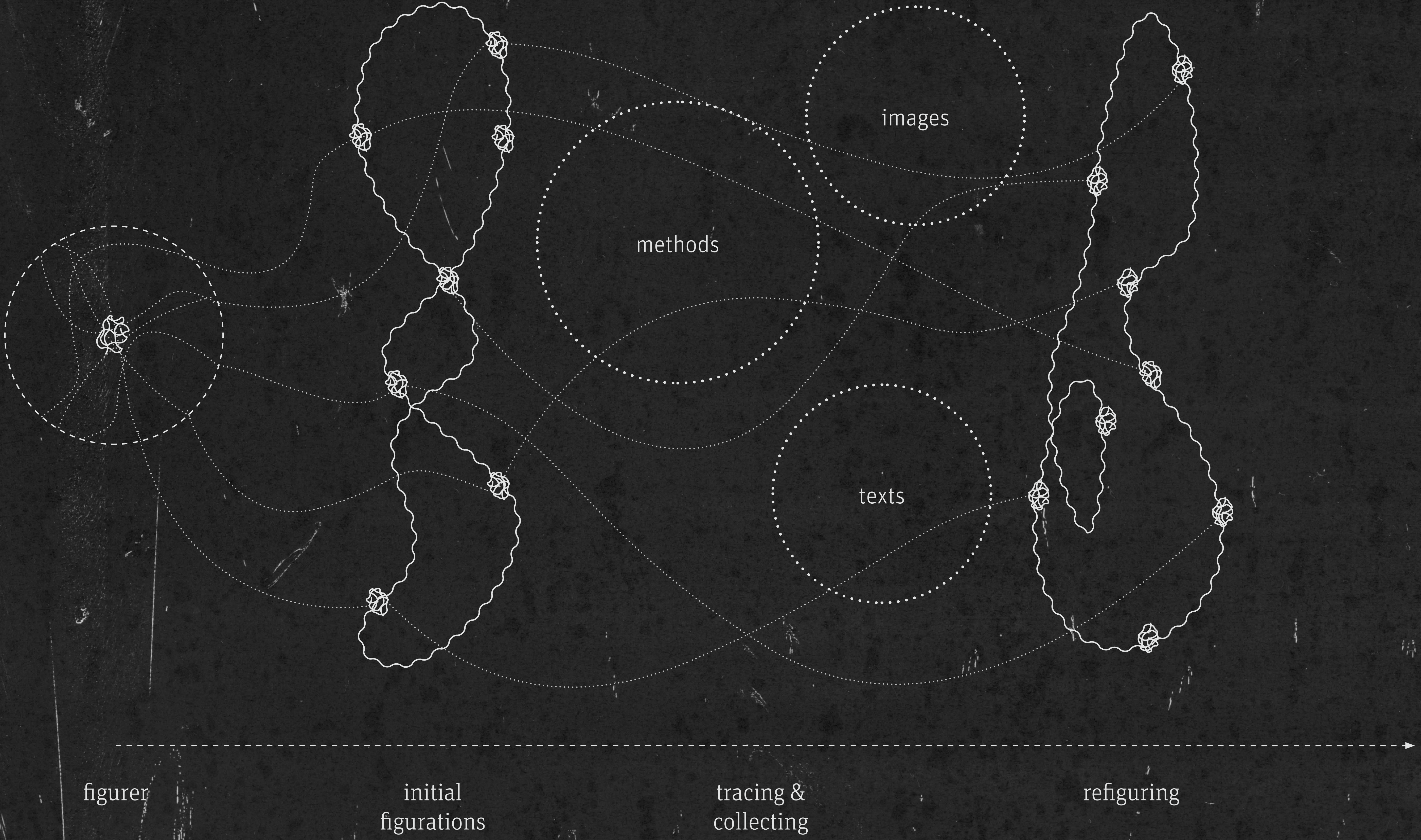
figurer

initial
figurations

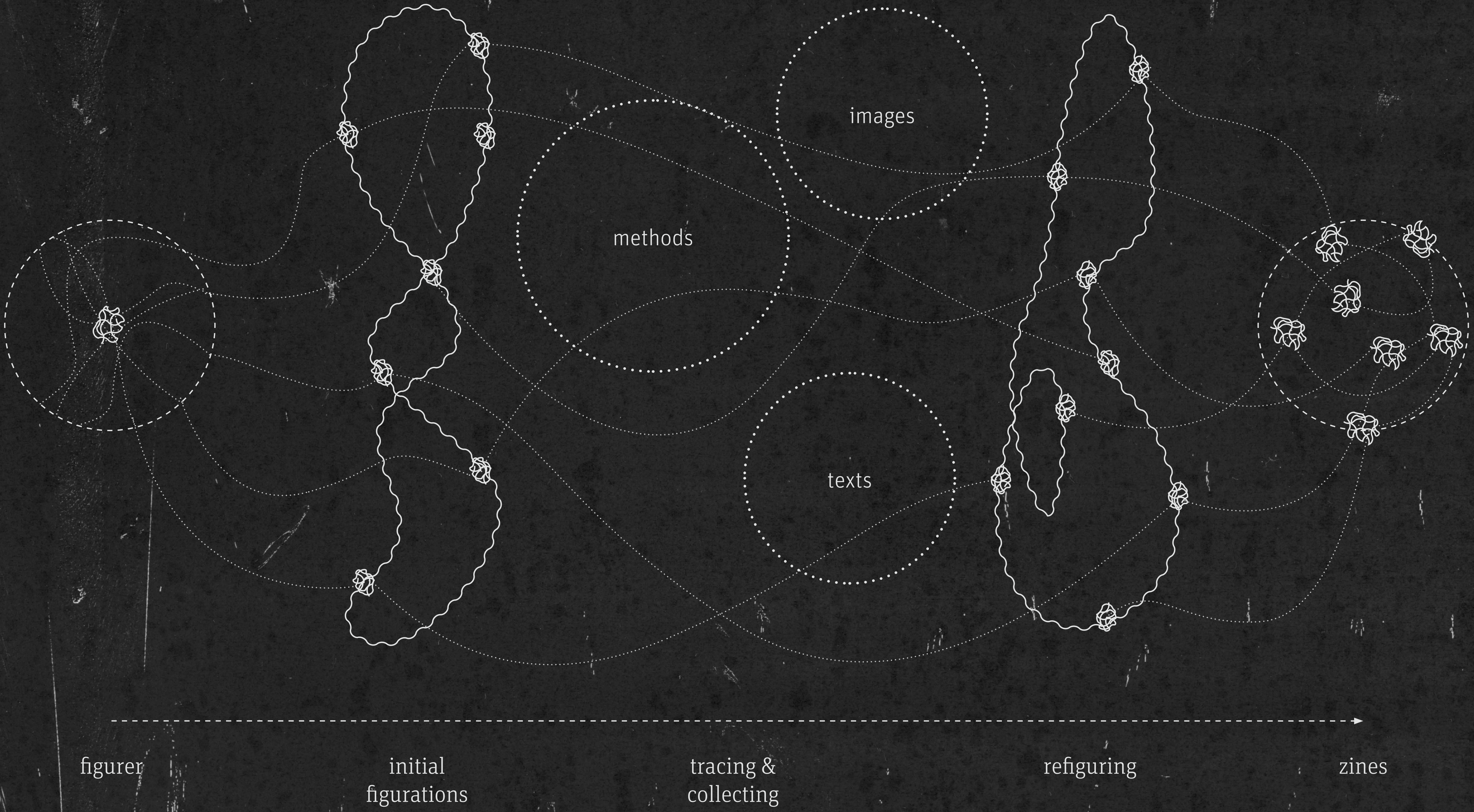
tracing &
collecting

refiguring

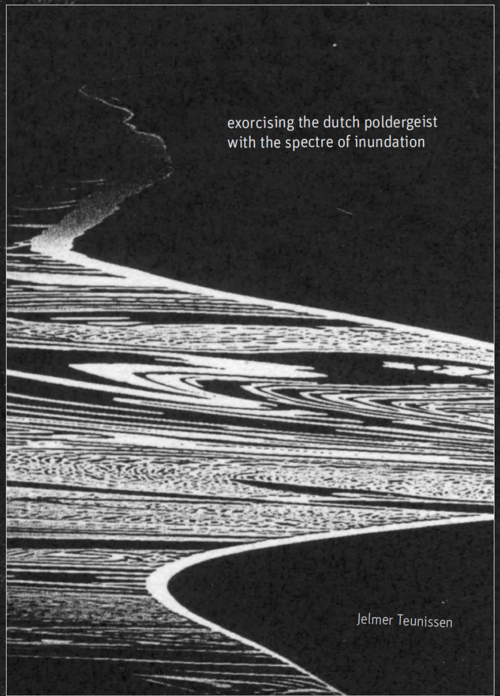
research methods - string figuring with figurations of wetness


images
methods
texts
figurer
initial figurations
tracing & collecting
refiguring

research methods - string figuring with figurations of wetness


images
methods
texts
figurer
initial figurations
tracing & collecting
refiguring
zines

research methods - zines

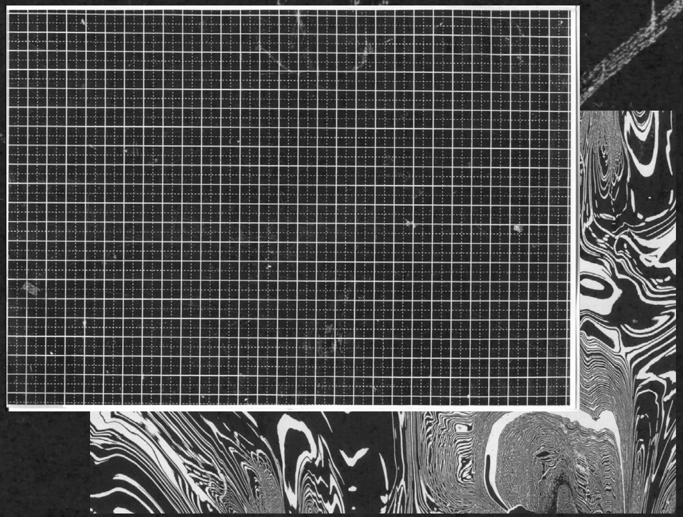

exorcising the dutch poldergeist
with the spectre of inundation

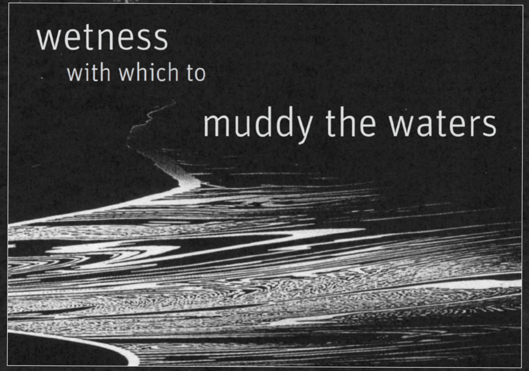
Jelmer Teunissen

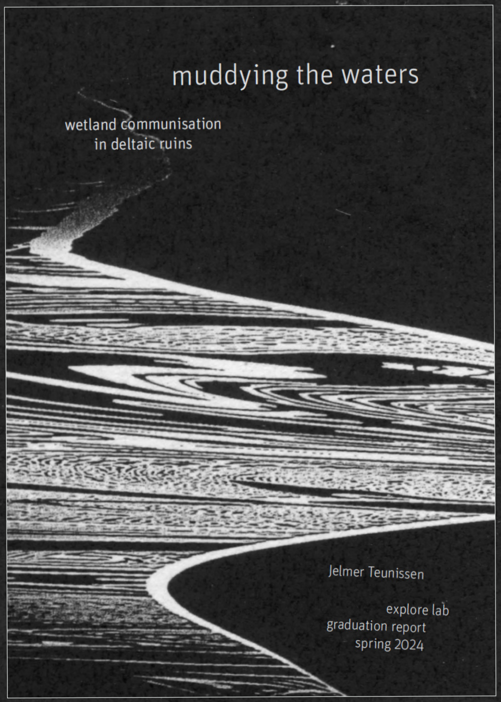
BEAVER:

POLDER
SABOTAGE

/ WETLAND
ABUNDANCE



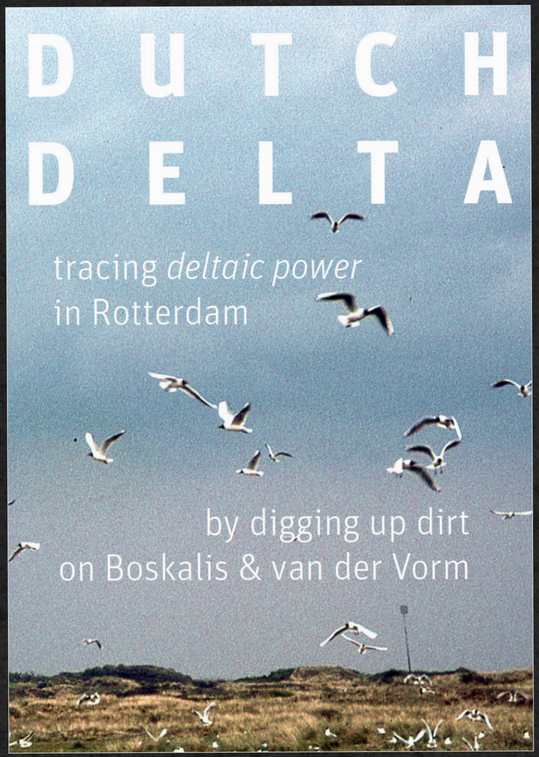

wetness
with which to
muddy the waters


muddying the waters

wetland communisation
in deltaic ruins

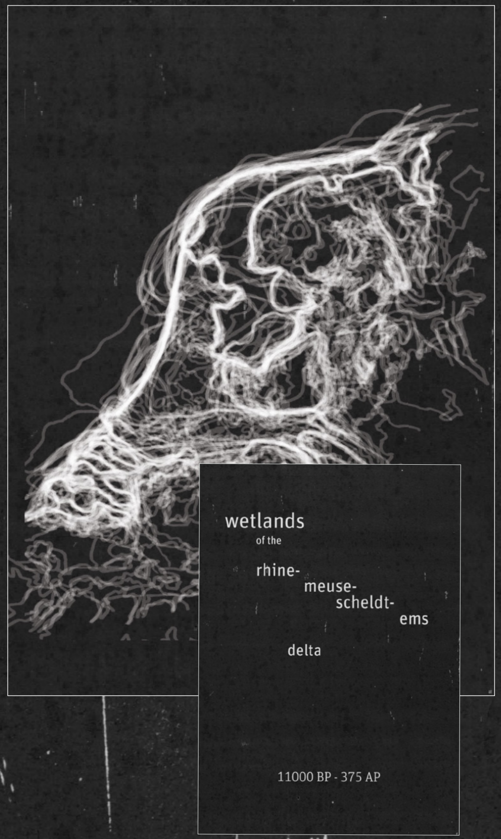
Jelmer Teunissen

explore lab
graduation report
spring 2024

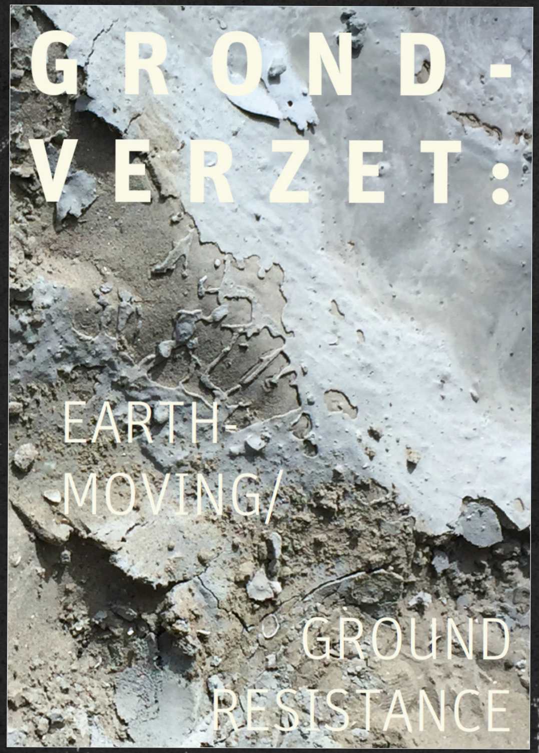

DUTCH
DELTA

tracing *deltaic power*
in Rotterdam

by digging up dirt
on Boskalis & van der Vorm

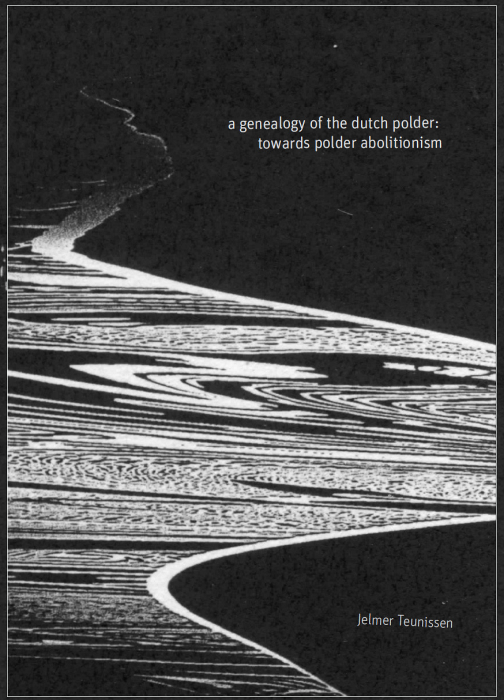

wetlands
of the
rhine-
meuse-
scheldt-
ems
delta

11000 BP - 375 AP

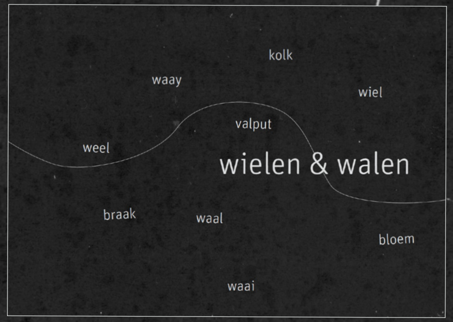

GROND-
VERZET:

EARTH-
MOVING/

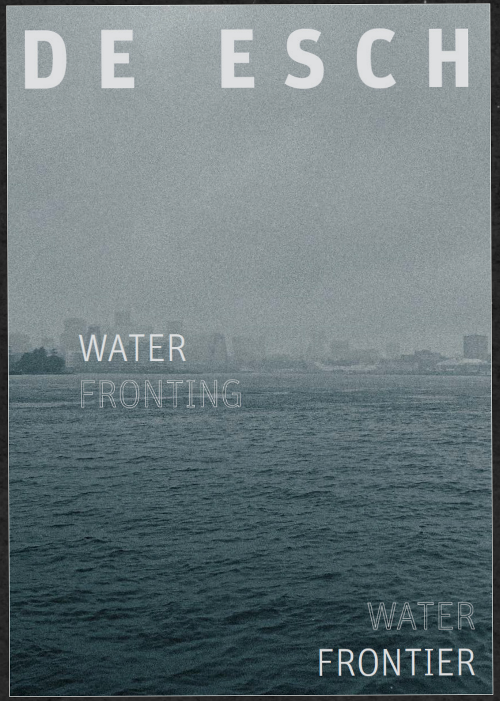
GROUND
RESISTANCE


a genealogy of the dutch polder:
towards polder abolitionism

Jelmer Teunissen


wielen & walen

kolk
waay
wiel
valput
weel
braak
waal
bloem
waai


DE ESCH

WATER
FRONTING

WATER
FRONTIER

design methods - speculative fabulation of wet futures

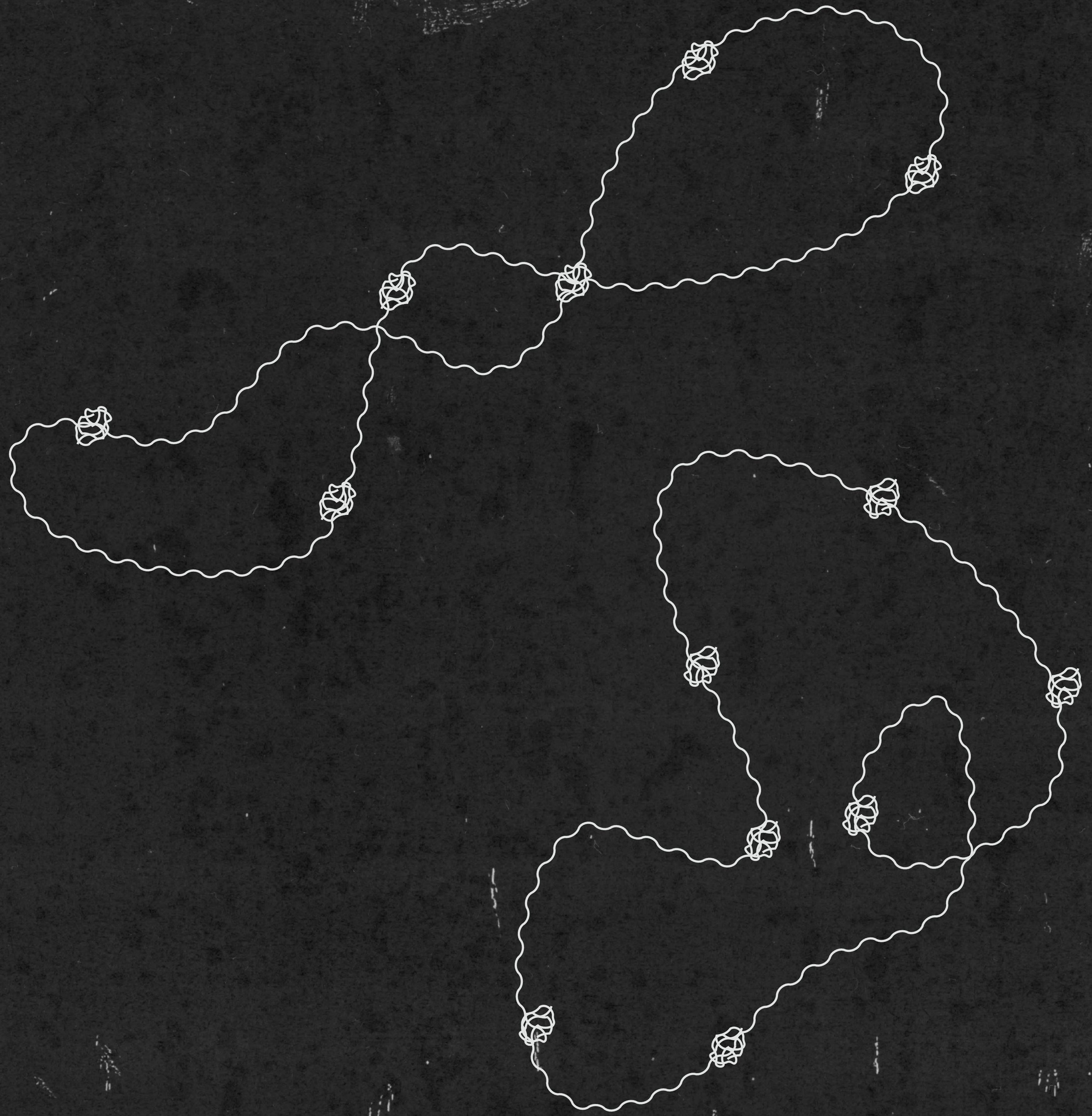
speculative fabulation:

“a relay into an uncertain future
rooted in everyday storytelling practices,

an explorative mode of attention,

a theory of history,

and a practice of worlding”



Haraway, D. J. (2016). *Staying with the trouble: Making kin in the Chthulucene* (p. 134, 213)., Duke University Press.

past present future

design methods - speculative fabulation of wet futures

past

deciphered

present

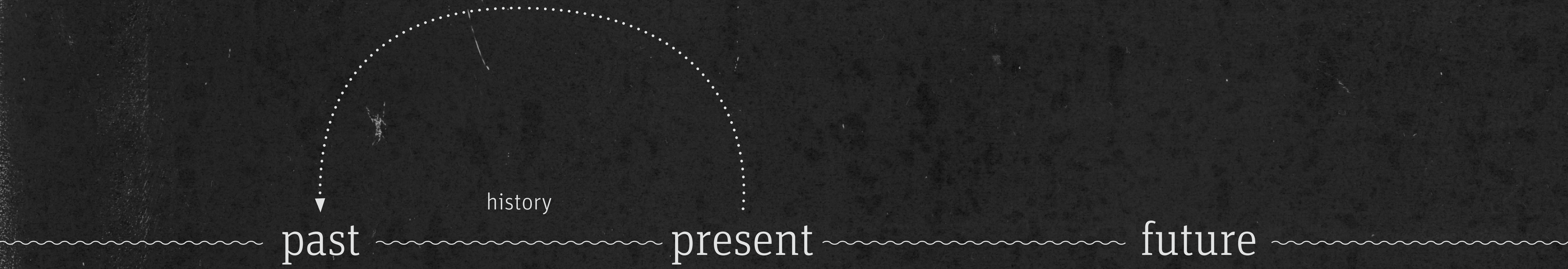
experienced

future

envisioned

Da Cunha, D. (2019). *The Invention of Rivers: Alexander's eye and Ganga's descent*. University of Pennsylvania Press.
Da Cunha, D. (2019, February 20). *The Invention of Rivers* [Lecture]. Daniel Urban Kiley Lecture, Harvard GSD, Cambridge, Massachusetts, USA.

design methods - speculative fabulation of wet futures



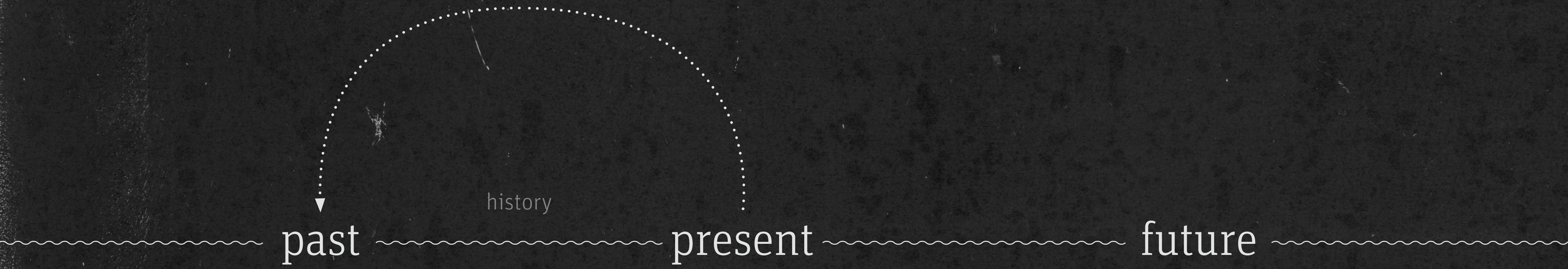
history

past

present

future

design methods - speculative fabulation of wet futures



history

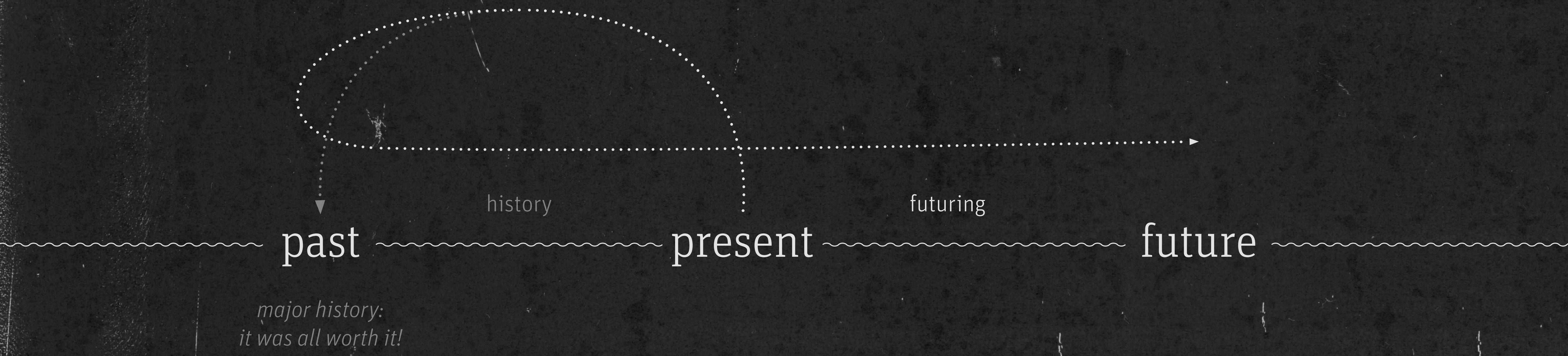
past

present

future

major history:
it was all worth it!

design methods - speculative fabulation of wet futures



history

futuring

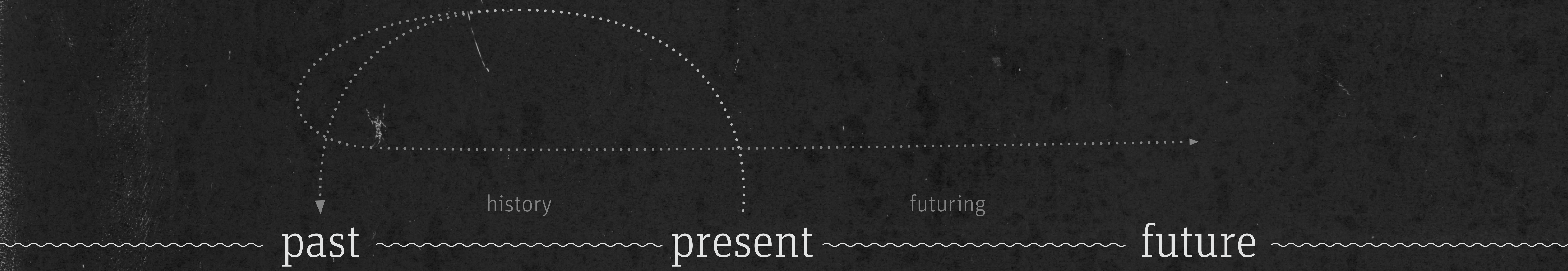
past

present

future

major history:
it was all worth it!

design methods - speculative fabulation of wet futures



history

futuring

past

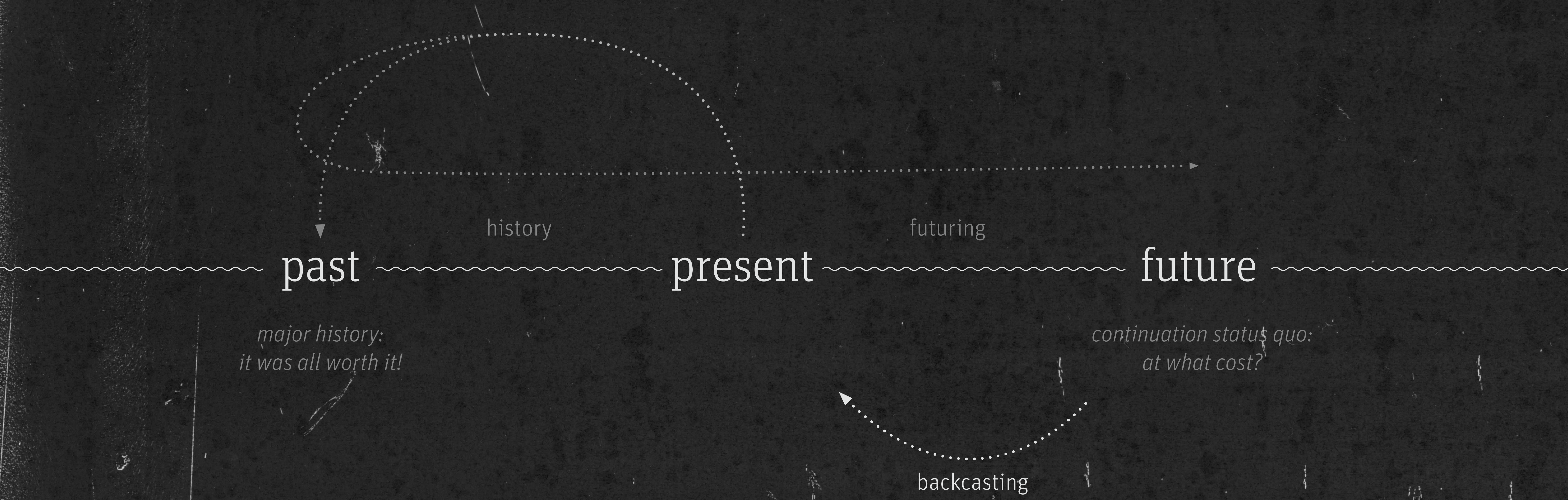
present

future

major history:
it was all worth it!

continuation status quo:
at what cost?

design methods - speculative fabulation of wet futures



history

futuring

past

present

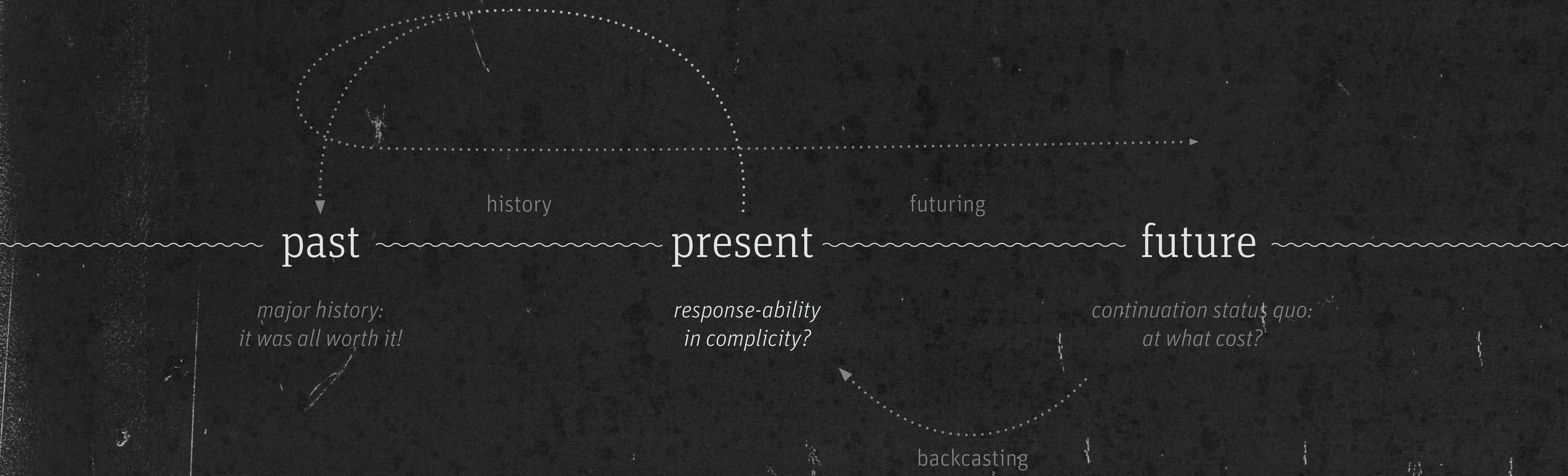
future

major history:
it was all worth it!

continuation status quo:
at what cost?

backcasting

design methods - speculative fabulation of wet futures



history

futuring

past

present

future

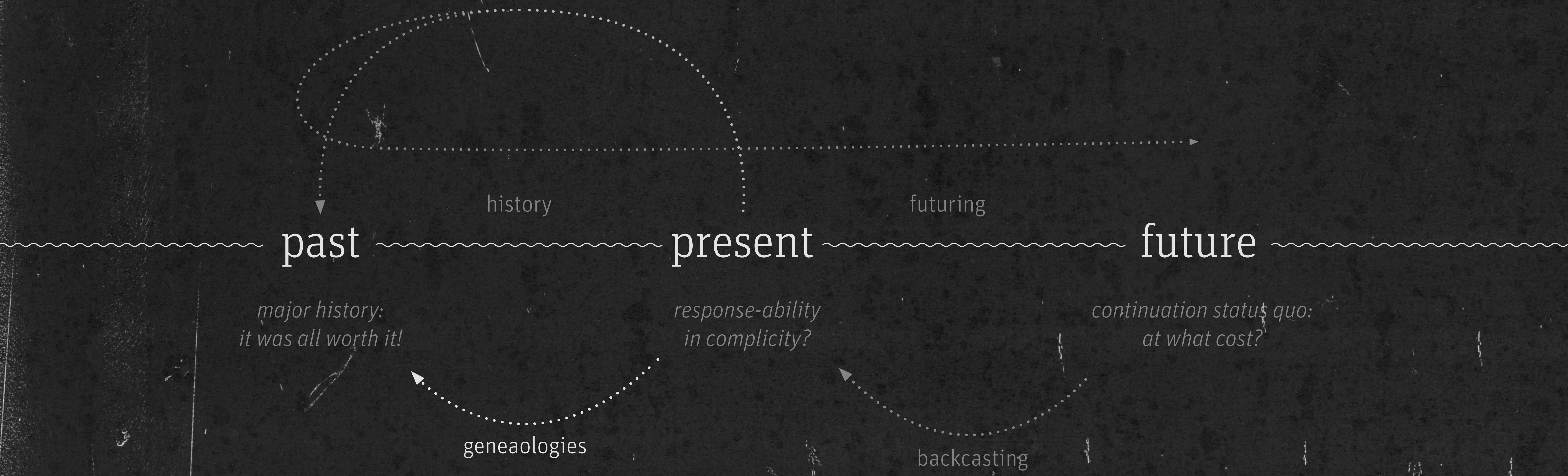
major history:
it was all worth it!

response-ability
in complicity?

continuation status quo:
at what cost?

backcasting

design methods - speculative fabulation of wet futures



history

futuring

past

present

future

major history:
it was all worth it!

response-ability
in complicity?

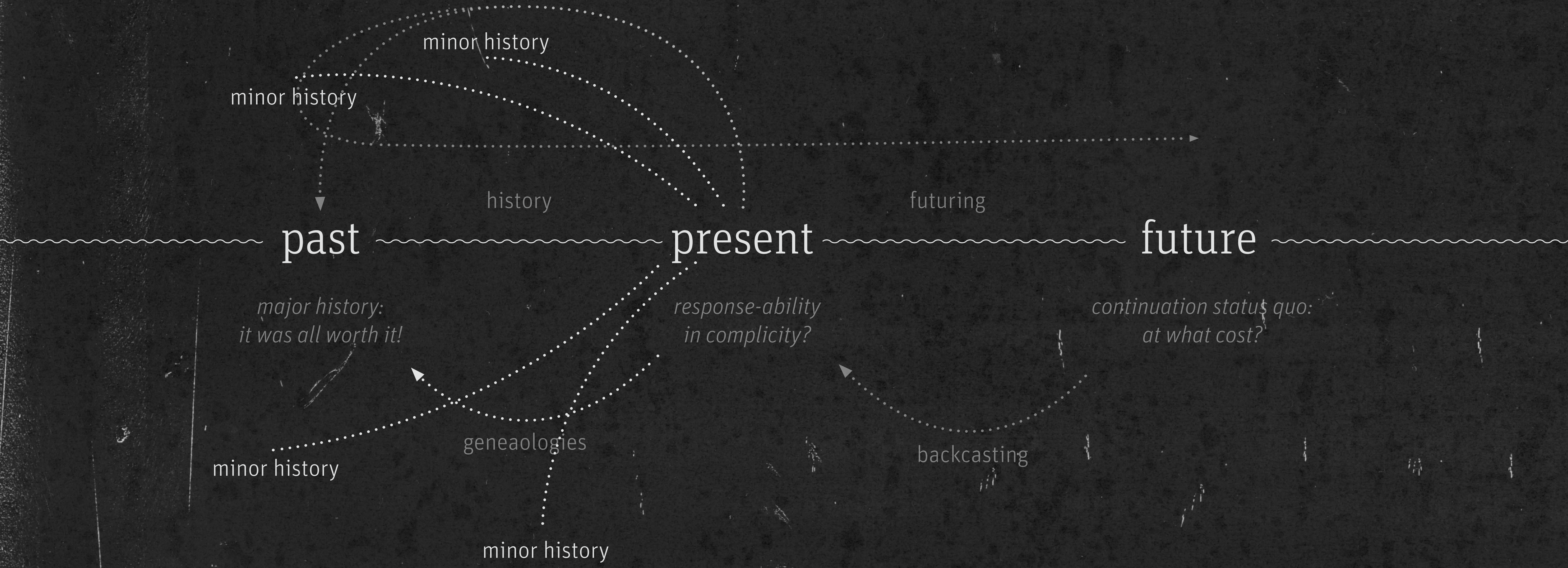
continuation status quo:
at what cost?

geneaologies

backcasting

Foucault, M. (1979). *Discipline and punish: The birth of the prison* (A. Sheridan, Trans.). Vintage. (Original work published 1975).

design methods - speculative fabulation of wet futures



minor history

minor history

history

futuring

past

present

future

major history:
it was all worth it!

response-ability
in complicity?

continuation status quo:
at what cost?

geneaologies

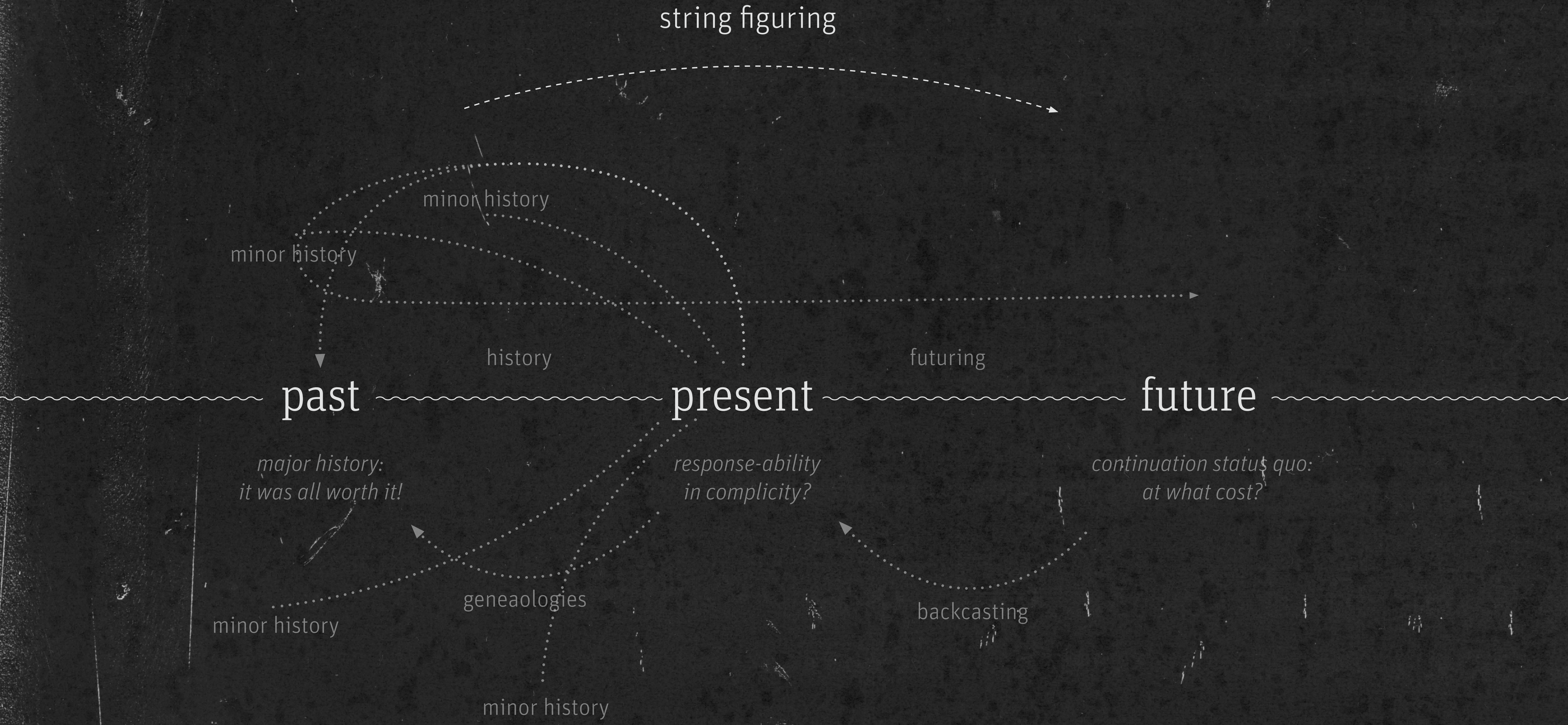
backcasting

minor history

minor history

Deleuze, G., & Guattari, F. L. (1987). *A Thousand Plateaus: Capitalism and Schizophrenia* (B. Massumi, Trans.). University of Minnesota Press.

design methods - speculative fabulation of wet futures



string figuring

minor history

minor history

history

futuring

past

present

future

major history:
it was all worth it!

response-ability
in complicity?

continuation status quo:
at what cost?

geneaologies

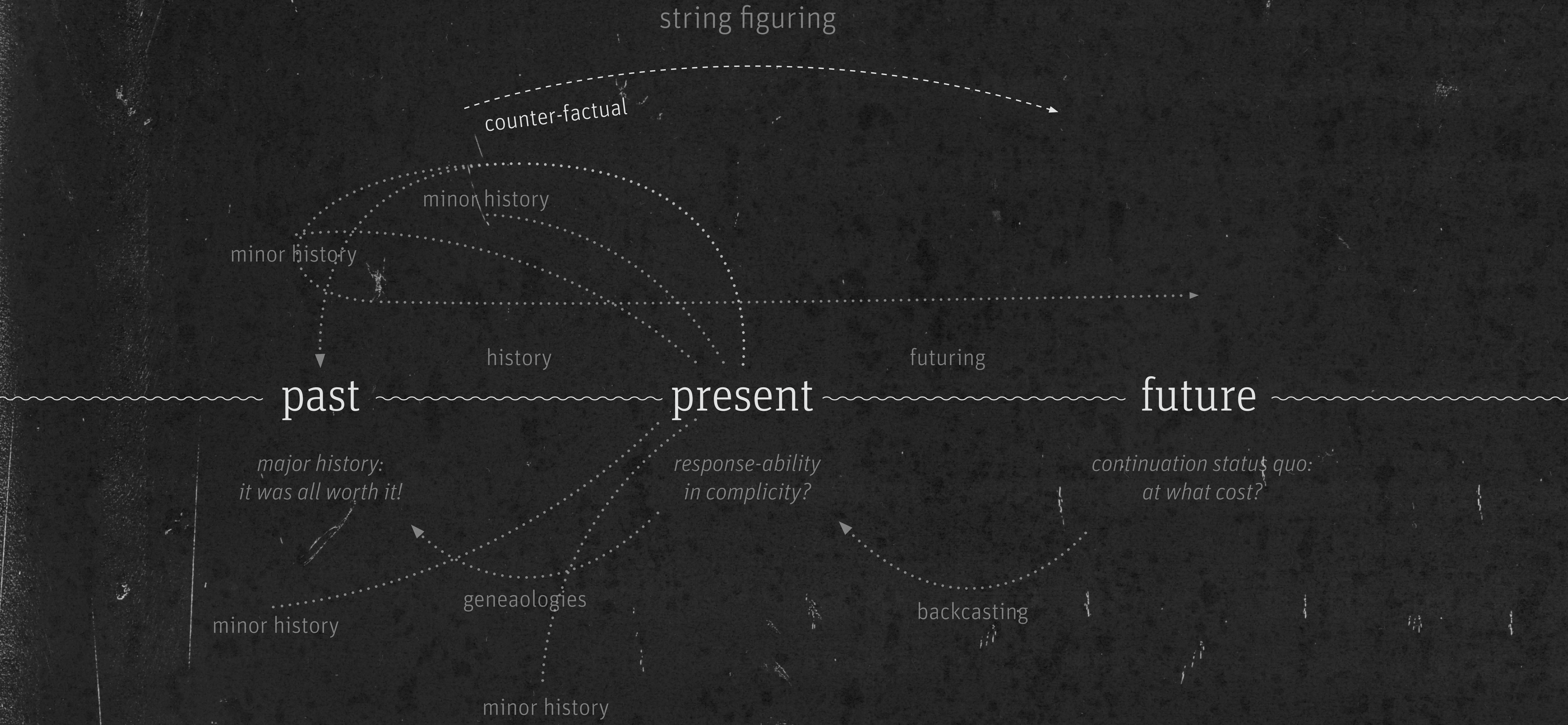
backcasting

minor history

minor history

Haraway, D. J. (2016). *Staying with the trouble: Making kin in the Chthulucene* (p. 3). Duke University Press.

design methods - speculative fabulation of wet futures



string figuring

counter-factual

minor history

minor history

history

futuring

past

present

future

major history:
it was all worth it!

response-ability
in complicity?

continuation status quo:
at what cost?

geneaologies

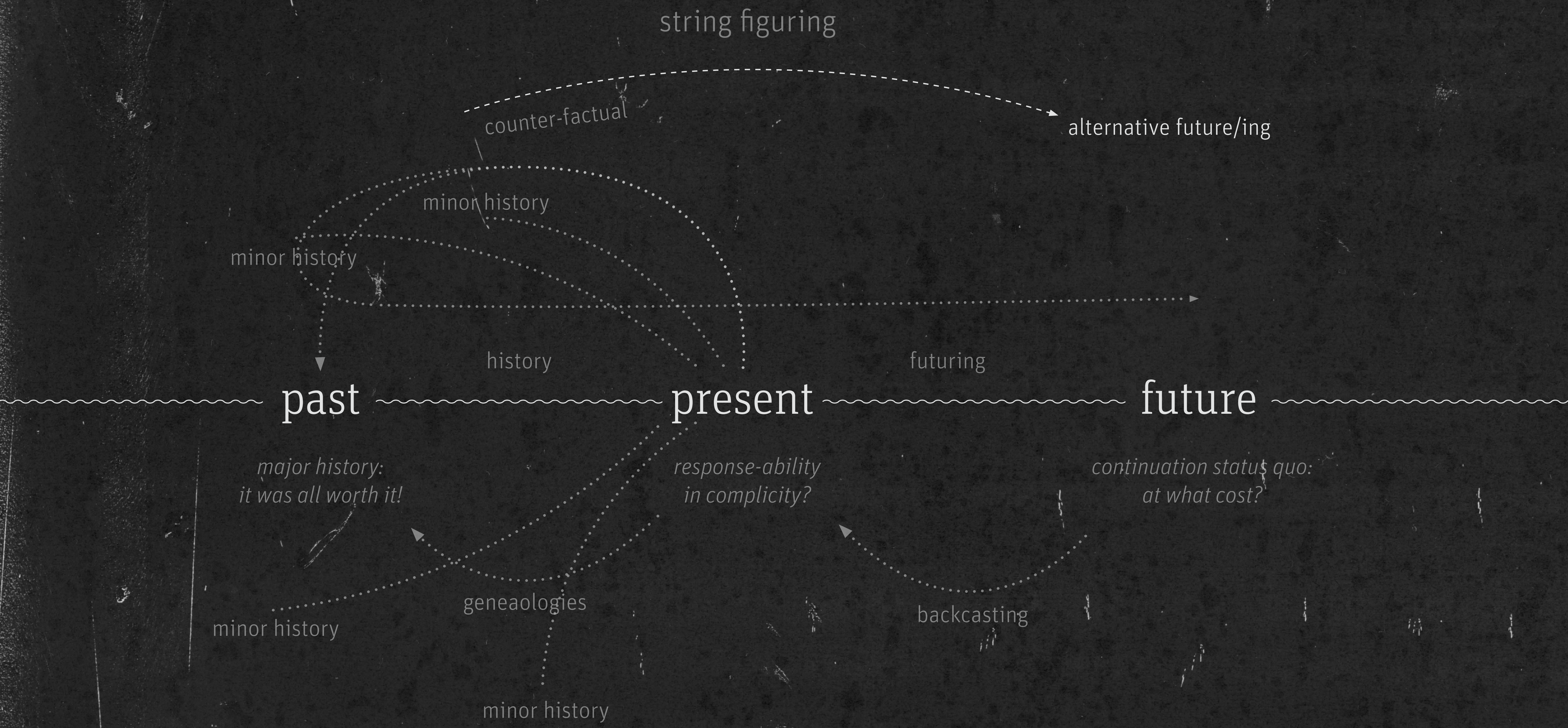
backcasting

minor history

minor history

Colebrook, C. (2017). *We have always been post-Anthropocene: The Anthropocene counterfactual*. Anthropocene feminism, 1-20.

design methods - speculative fabulation of wet futures



string figuring

counter-factual

alternative future/ing

minor history

minor history

history

futuring

past

present

future

major history:
it was all worth it!

response-ability
in complicity?

continuation status quo:
at what cost?

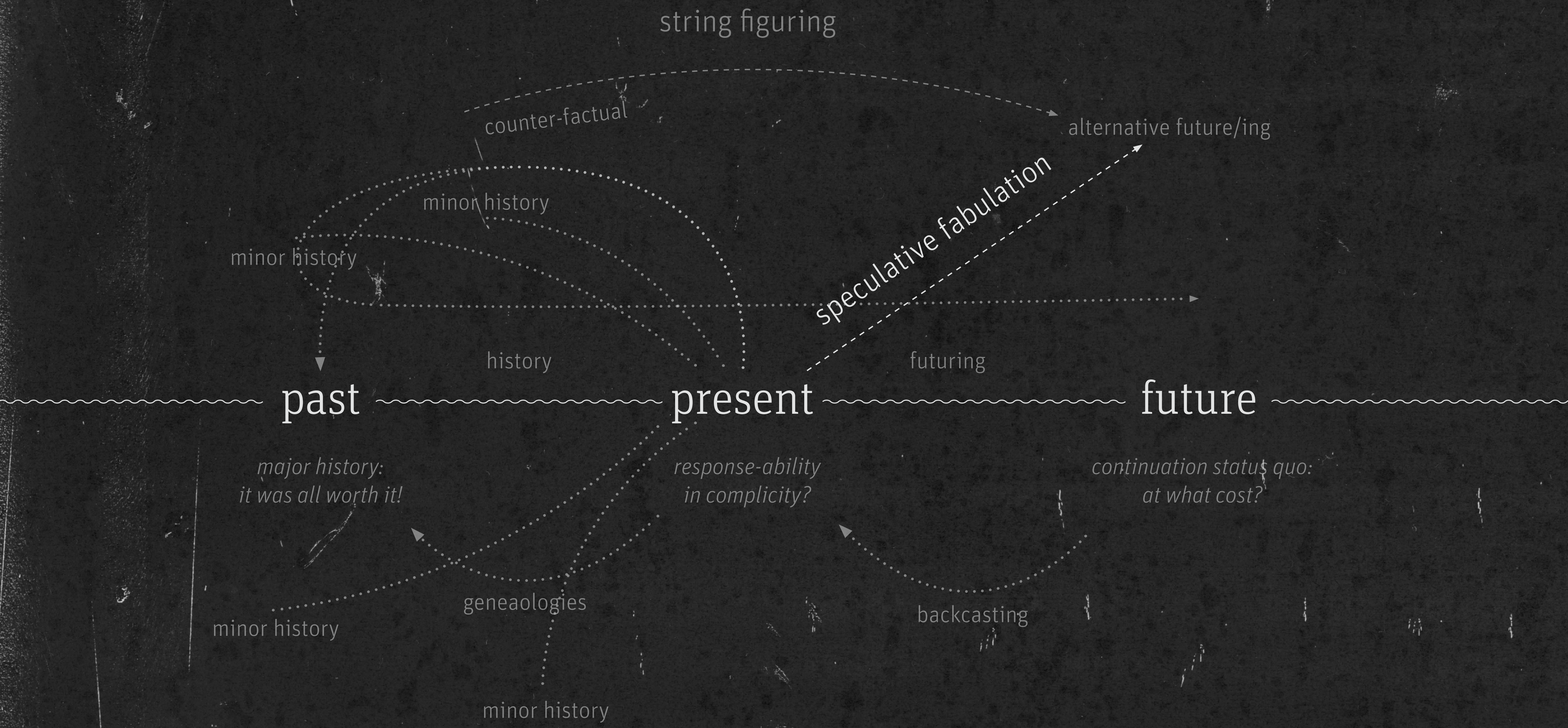
geneaologies

minor history

backcasting

minor history

design methods - speculative fabulation of wet futures



string figuring

counter-factual

alternative future/ing

minor history

minor history

speculative fabulation

history

futuring

past

present

future

major history:
it was all worth it!

response-ability
in complicity?

continuation status quo:
at what cost?

geneaologies

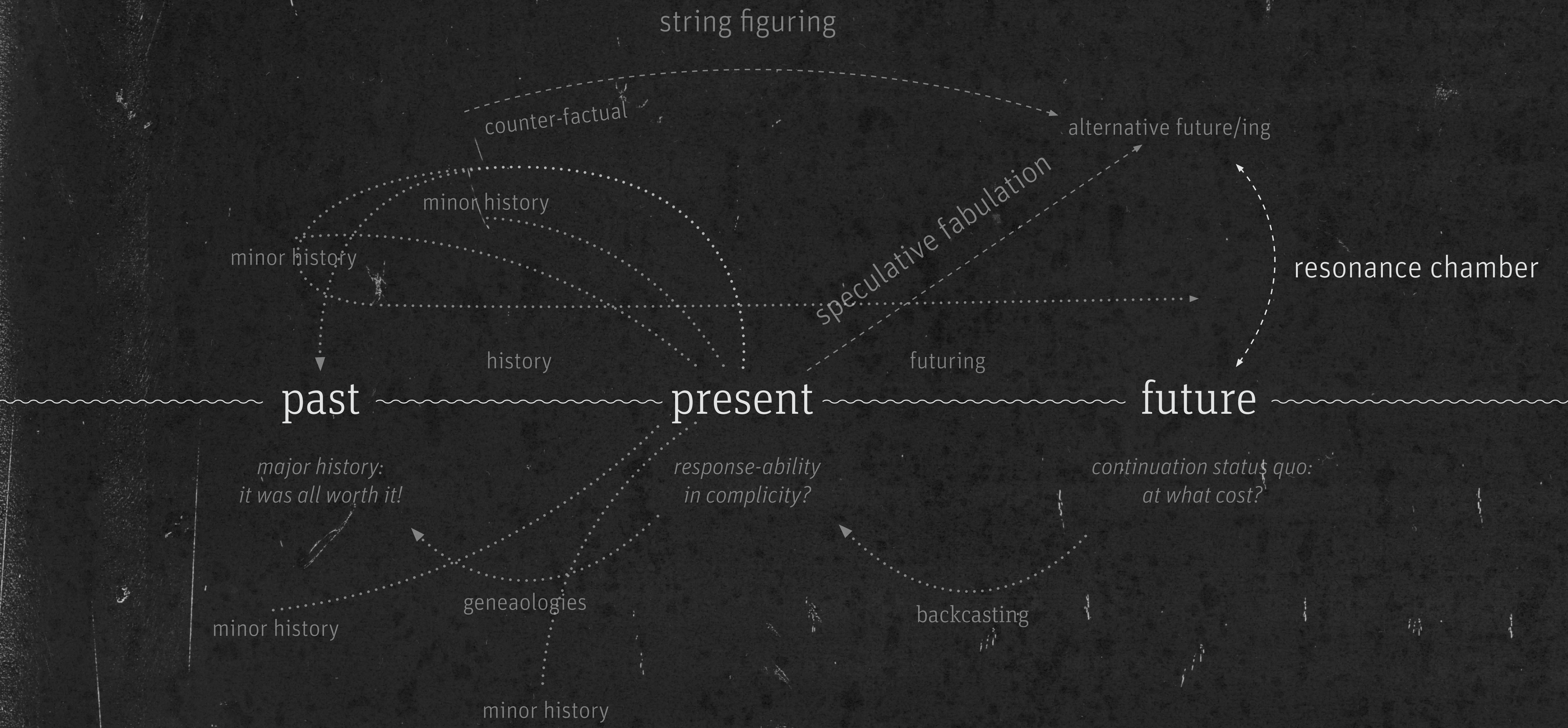
backcasting

minor history

minor history

Haraway, D. J. (2016). *Staying with the trouble: Making kin in the Chthulucene* (p. 134, 213)., Duke University Press.

design methods - speculative fabulation of wet futures



string figuring

counter-factual

alternative future/ing

minor history

minor history

speculative fabulation

resonance chamber

history

futuring

past

present

future

major history:
it was all worth it!

response-ability
in complicity?

continuation status quo:
at what cost?

geneaologies

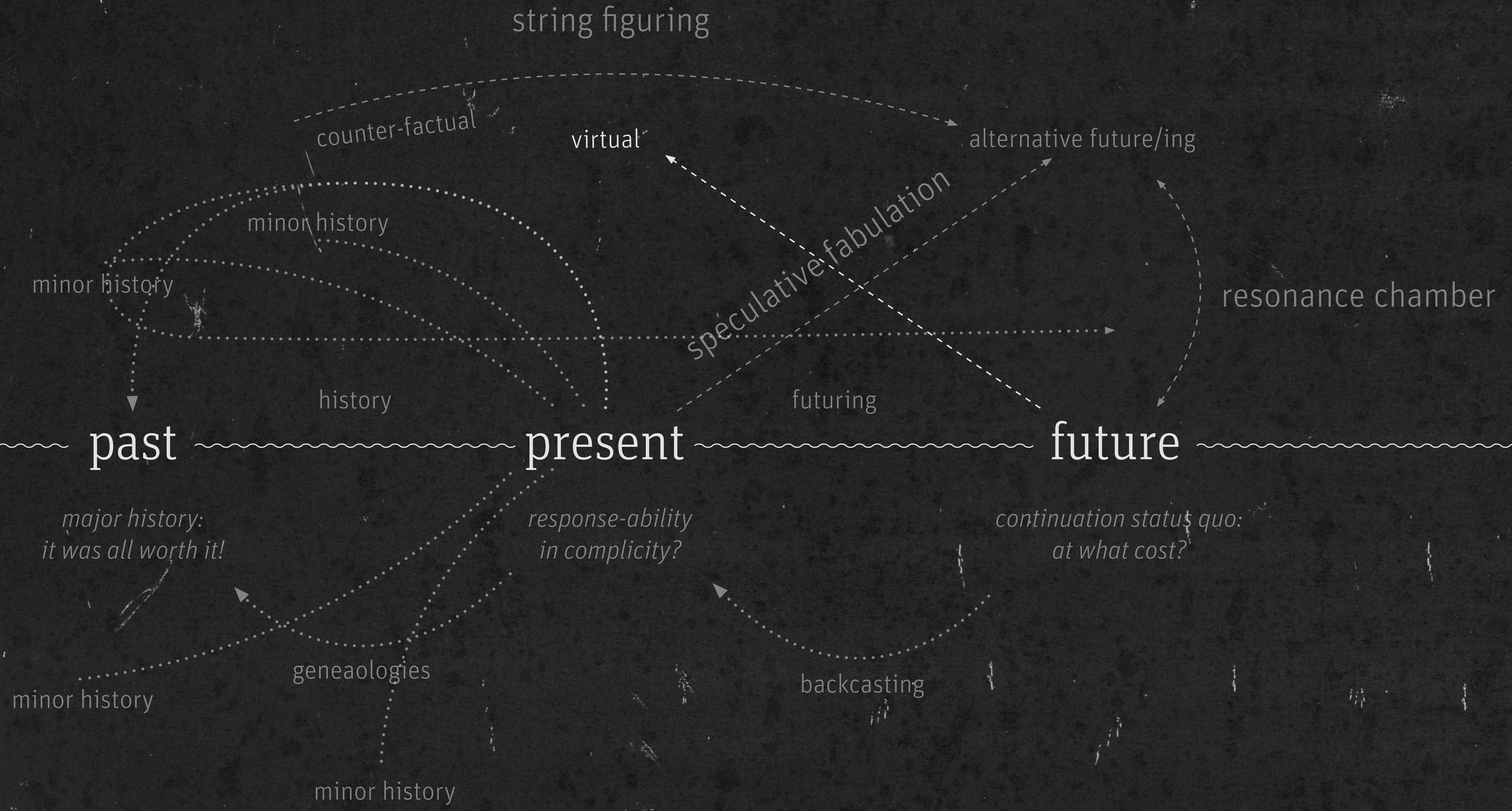
minor history

backcasting

minor history

Doucet, I. (2019, September). *Anticipating Fabulous Futures*. E-flux. https://www.e-flux.com/architecture/overgrowth/284918/anticipating-fabulous-futures/
Stengers, I. (2015). I*n catastrophic times: Resisting the coming barbarism*. Open Humanities Press.

design methods - speculative fabulation of wet futures



string figuring

counter-factual

virtual

alternative future/ing

minor history

minor history

speculative fabulation

resonance chamber

history

futuring

past

present

future

major history:
it was all worth it!

response-ability
in complicity?

continuation status quo:
at what cost?

geneaologies

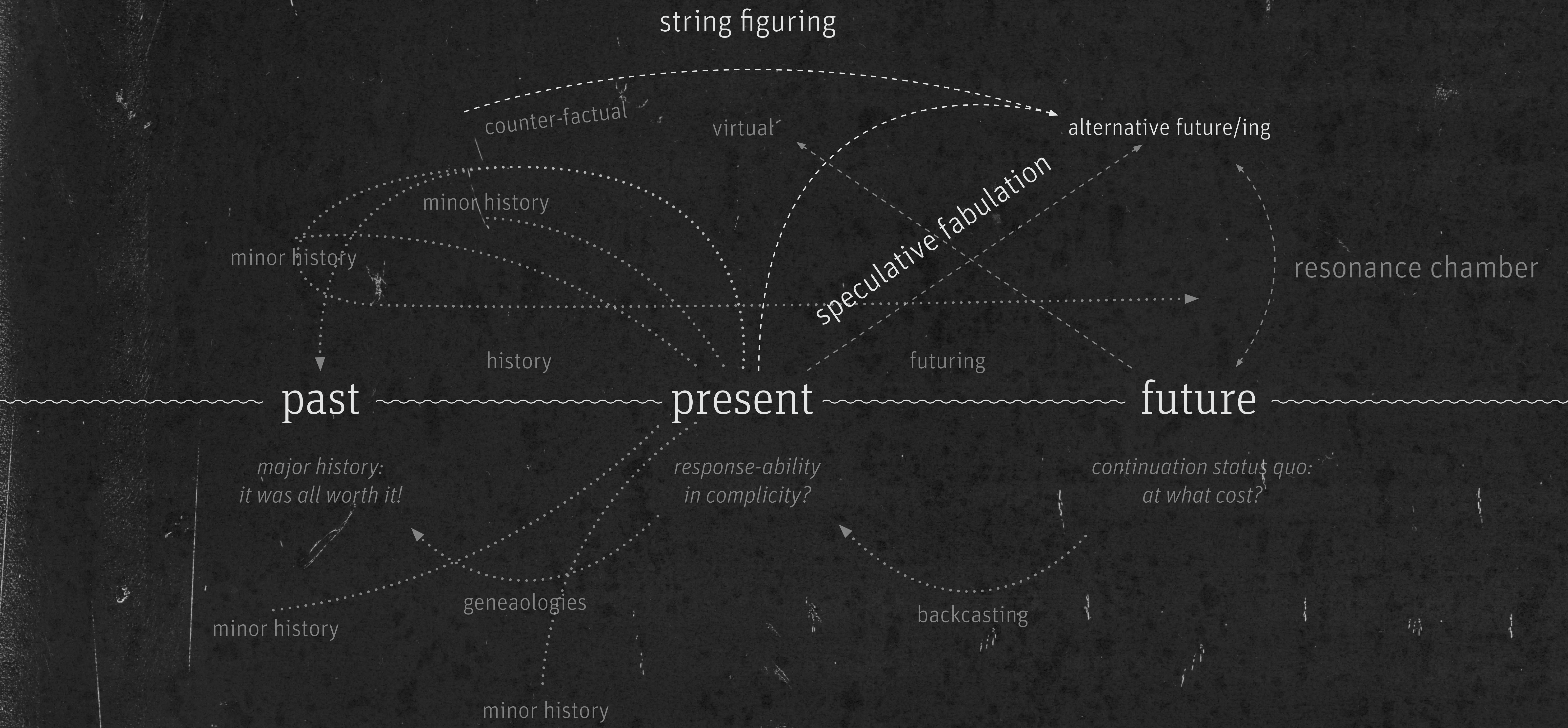
minor history

backcasting

minor history

Deleuze, G., & Parnet, C.(1987). The Actual and the Virtual (E. R. Albert, Trans.). In G. Deleuze & C. Parnet, *Dialogues II* (pp. 148-152). Columbia University Press. (Original work published 1975).

design methods - speculative fabulation of wet futures



string figuring

counter-factual

virtual

alternative future/ing

minor history

speculative fabulation

minor history

resonance chamber

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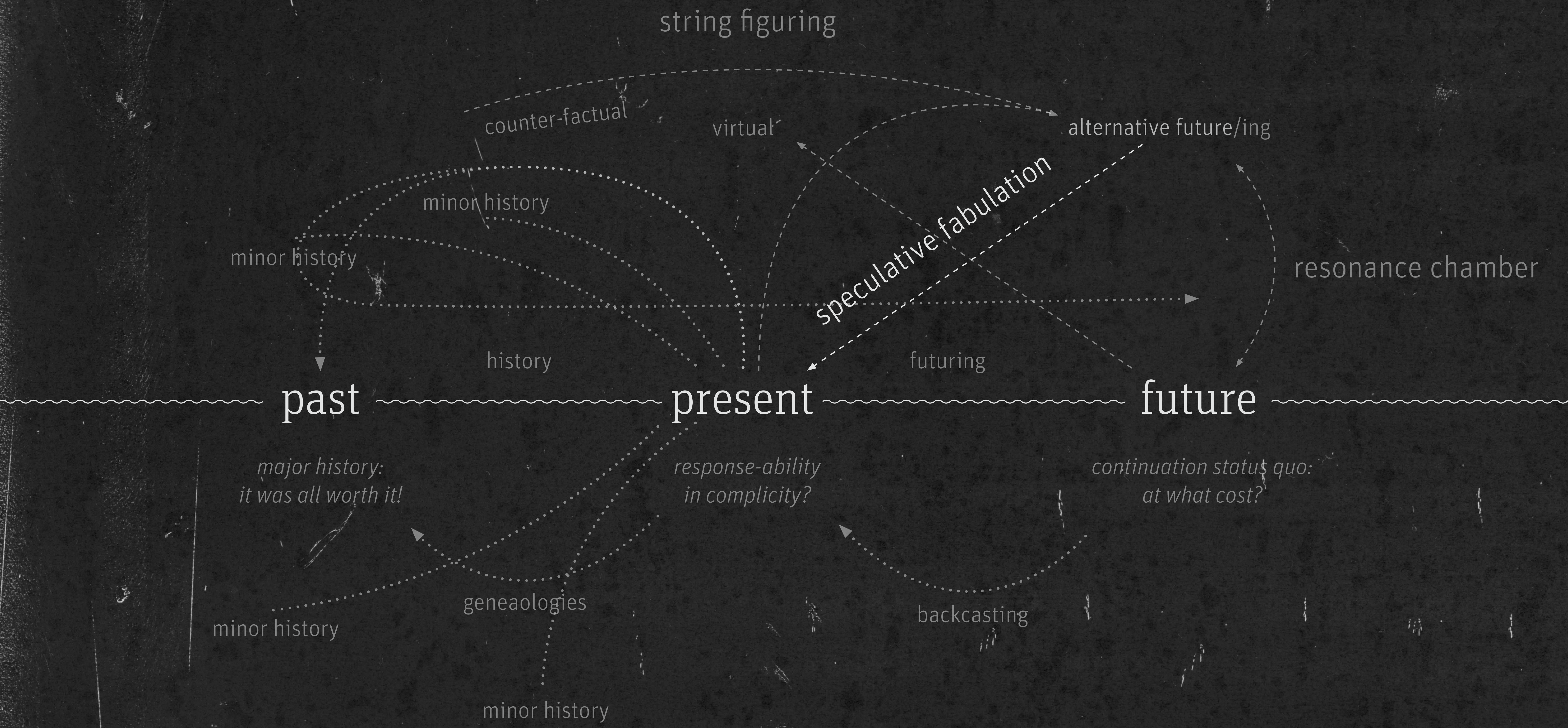
design methods - speculative fabulation of wet futures



string figuring

counter-factual

virtual

alternative future/ing

minor history

minor history

speculative fabulation

resonance chamber

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future

major history:
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minor history

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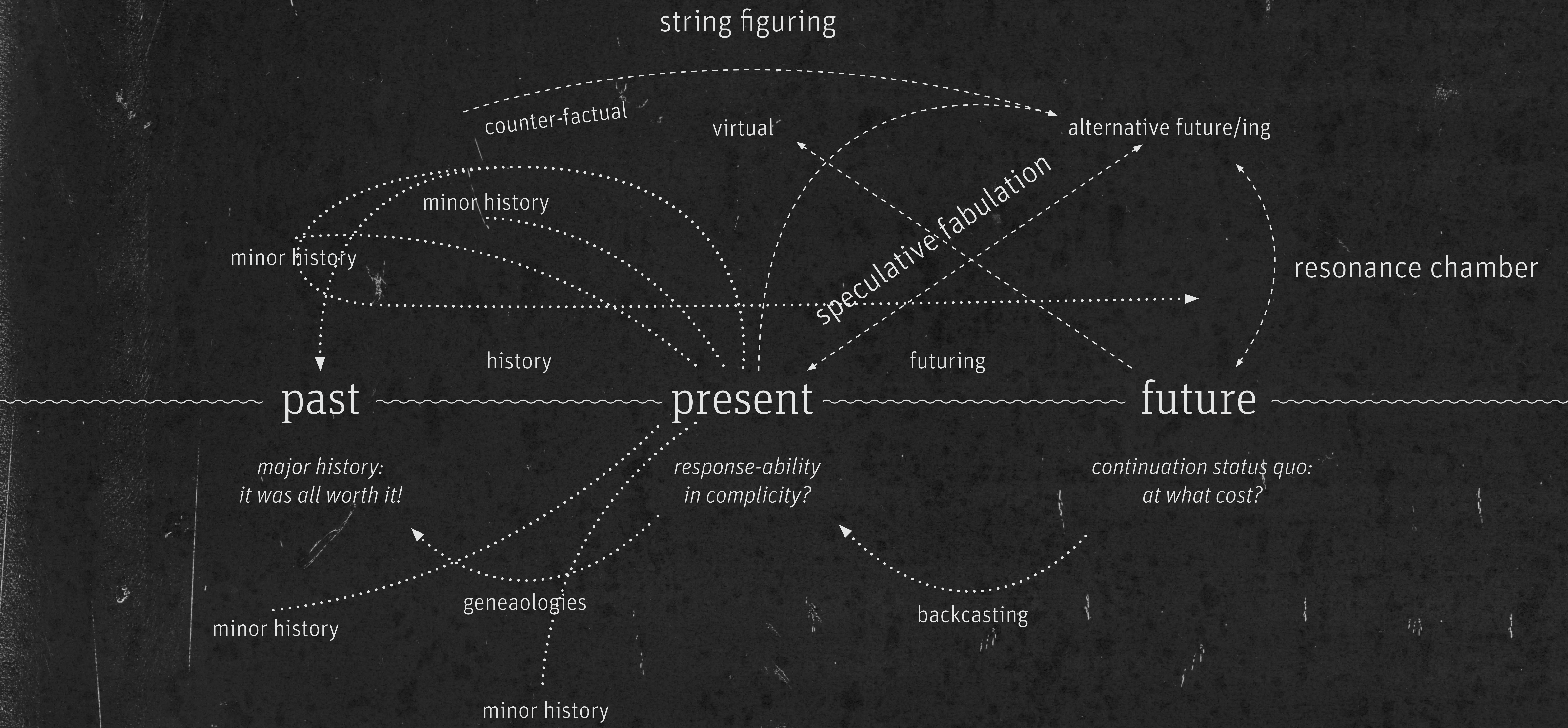
design methods - speculative fabulation of wet futures



string figuring

counter-factual

virtual

alternative future/ing

minor history

minor history

speculative fabulation

resonance chamber

history

futuring

past

present

future

major history:
it was all worth it!

response-ability
in complicity?

continuation status quo:
at what cost?

geneaologies

minor history

backcasting

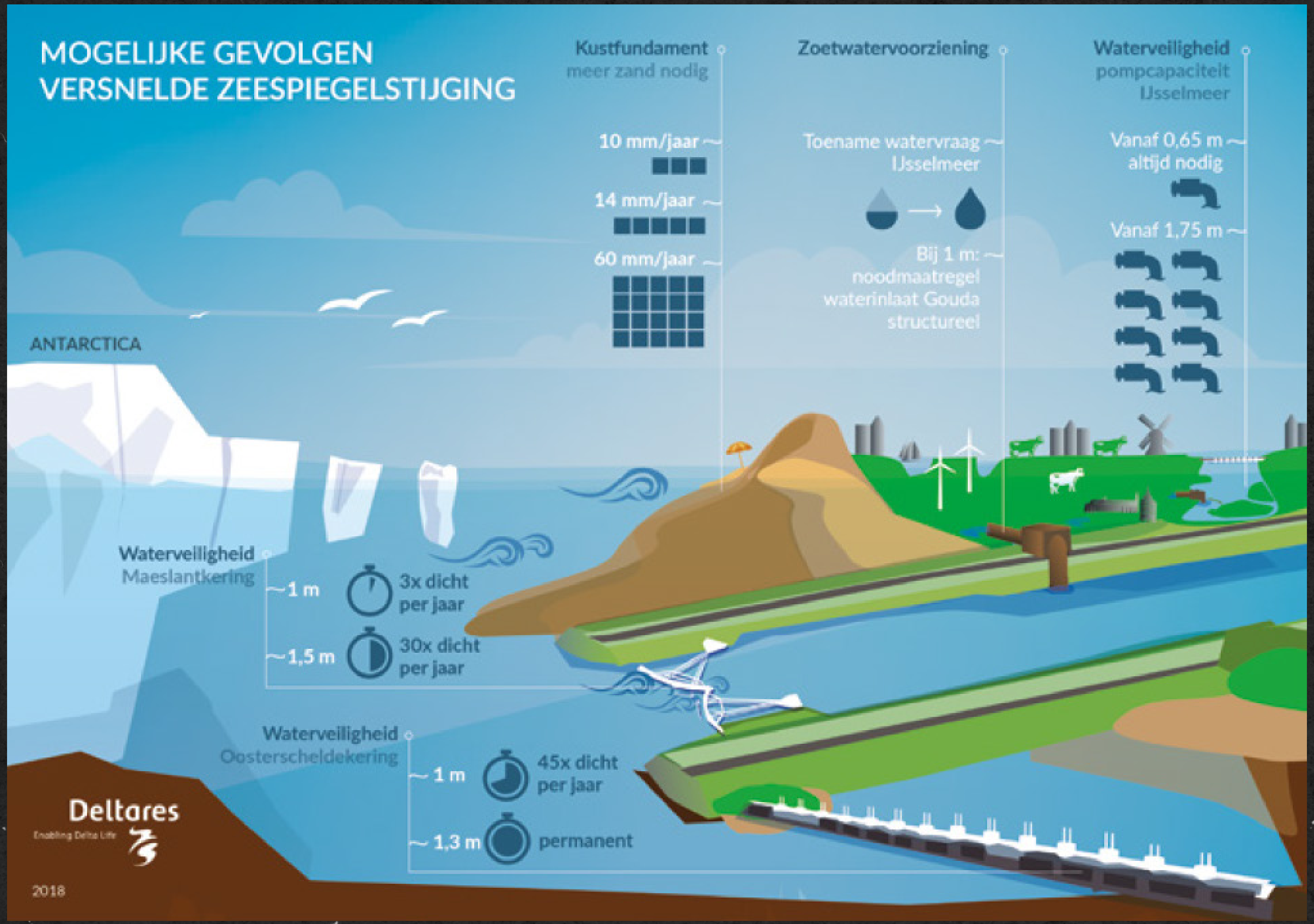
minor history

string figuring with figurations of wetness

speculative fabulation of wet futures

“Our delta, the coast, and its hinterland is home to a vast wealth of economic, ecological, and social values.

It is inconceivable that the Netherlands would want to sacrifice this wealth.”


MOGELIJKE GEVOLGEN
VERSNELDE ZEESPIEGELSTIJGING
Kustfundament
meer zand nodig
10 mm/jaar
14 mm/jaar
60 mm/jaar
Zoetwatervoorziening
Toename watervraag IJsselmeer
Bij 1 m: noodmaatregel waterinlaat Gouda structureel
Waterveiligheid
pompcapaciteit IJsselmeer
Vanaf 0,65 m altijd nodig
Vanaf 1,75 m
ANTARCTICA
Waterveiligheid
Maeslantkering
1 m
3x dicht per jaar
1,5 m
30x dicht per jaar
Waterveiligheid
Oosterscheldekering
1 m
45x dicht per jaar
1,3 m
permanent
Deltares
Enabling Delta Life
2018

Tweede Deltacommissie (2008). *Samen werken met water: Bevindingen van de Deltacommissie* [Government report]. Officiele bekendmakingen. https://zoek.officielebekendmakingen.nl/kst-31710-1-b1.pdf
Richter, S. (2021, June 26). *Keeping Retreat on the Table in the Safest Delta in the World* [Online lecture]. Climate Week at Penn, University of Pennsylvania, Philadelphia, Pennsylvania, USA. https://www.youtube.com/watch?v=ysOQAc5RHkc
Deltares (2018). *De mogelijke gevolgen van versnelde zeespiegelstijging voor kust, zoetwatervoorziening en waterveiligheid* [Illustration]. https://klimaatadaptatienederland.nl/actueel/actueel/nieuws/2018/deltares-brengt/

“From the moment a polder is created,
the process that will bring it to a point of unviability begins”

Richter, S. (2020). The Translation of Polder: Water Management in The Netherlands and Indonesia (p. 225). In M. Ji, & S. Laviosa (Eds.), *The Oxford Handbook of Translation and Social Practices* (pp. 222–242). Oxford University Press.

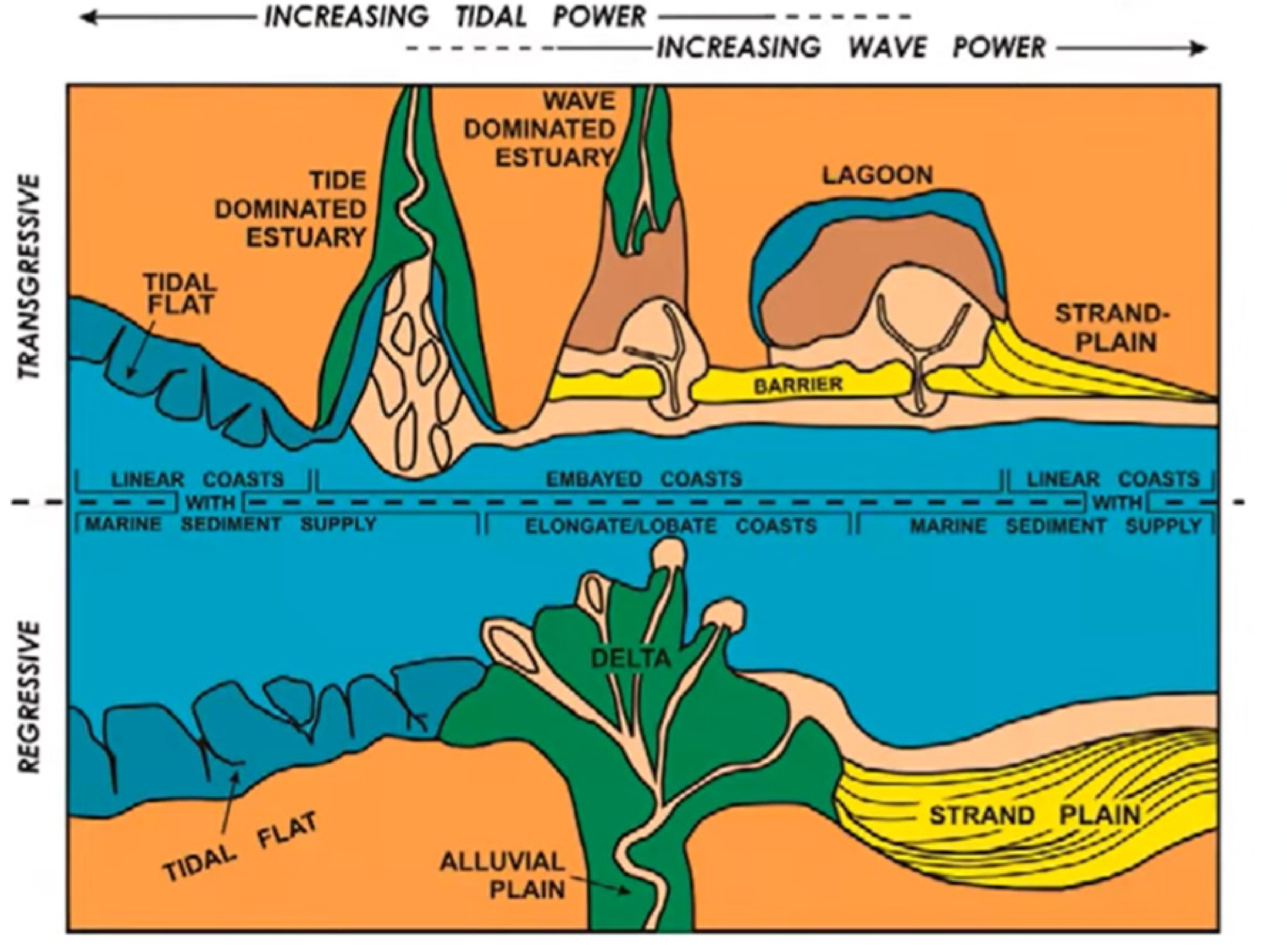
Polder realism:

The widespread sense that not only are polders
the only viable water management system in low-lying areas,

but also that it is now impossible
even to imagine a coherent alternative to them.

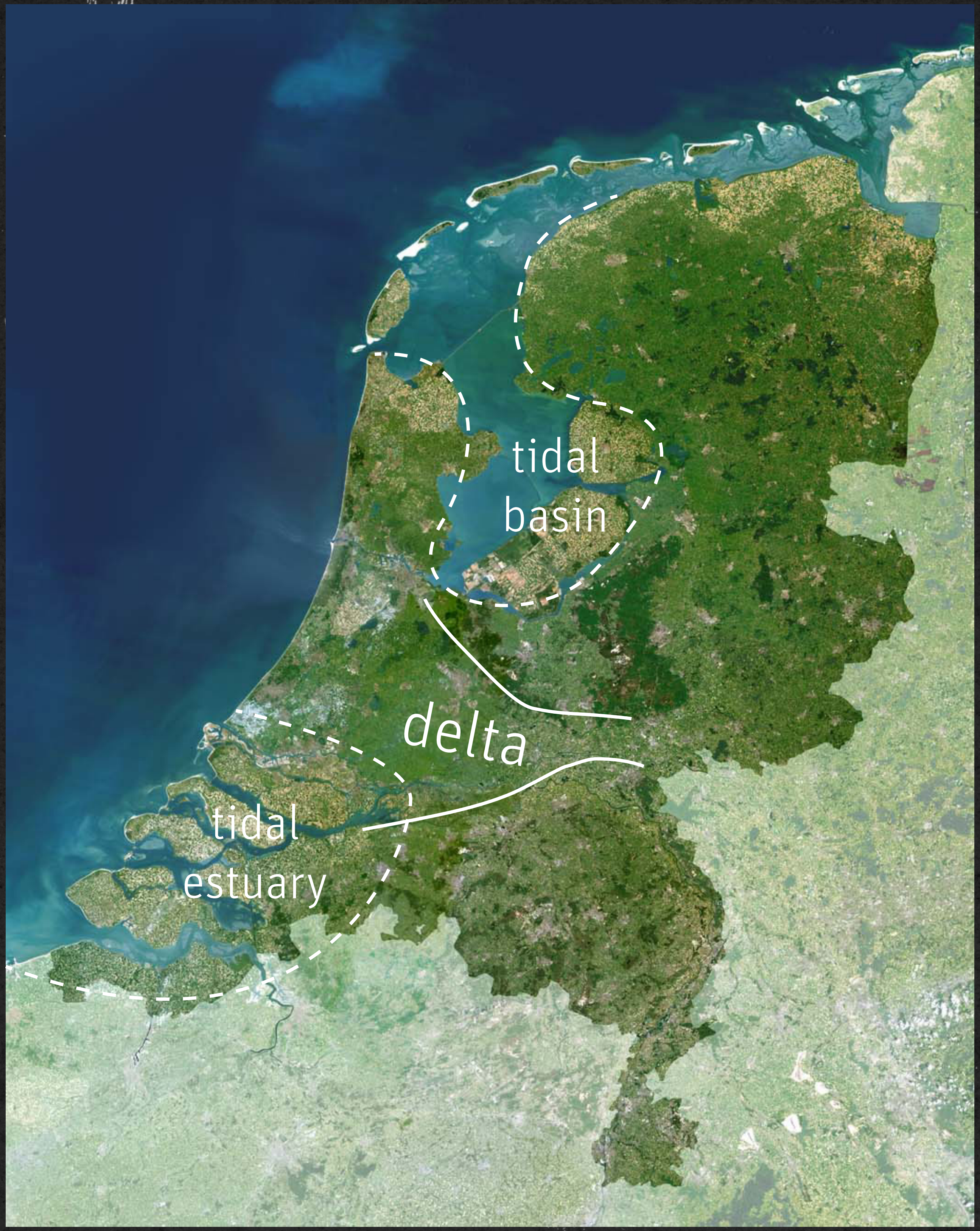
Fisher, M. (2009). *Capitalist realism: Is there no alternative?*. John Hunt Publishing.

research - string figuring with figurations of wetness


INCREASING TIDAL POWER
INCREASING WAVE POWER
TRANSGRESSIVE
REGRESSIVE
TIDAL FLAT
TIDE DOMINATED ESTUARY
WAVE DOMINATED ESTUARY
LAGOON
STRAND-PLAIN
BARRIER
LINEAR COASTS WITH MARINE SEDIMENT SUPPLY
EMBAYED COASTS
ELONGATE/LOBATE COASTS
LINEAR COASTS WITH MARINE SEDIMENT SUPPLY
DELTA
TIDAL FLAT
ALLUVIAL PLAIN
STRAND PLAIN

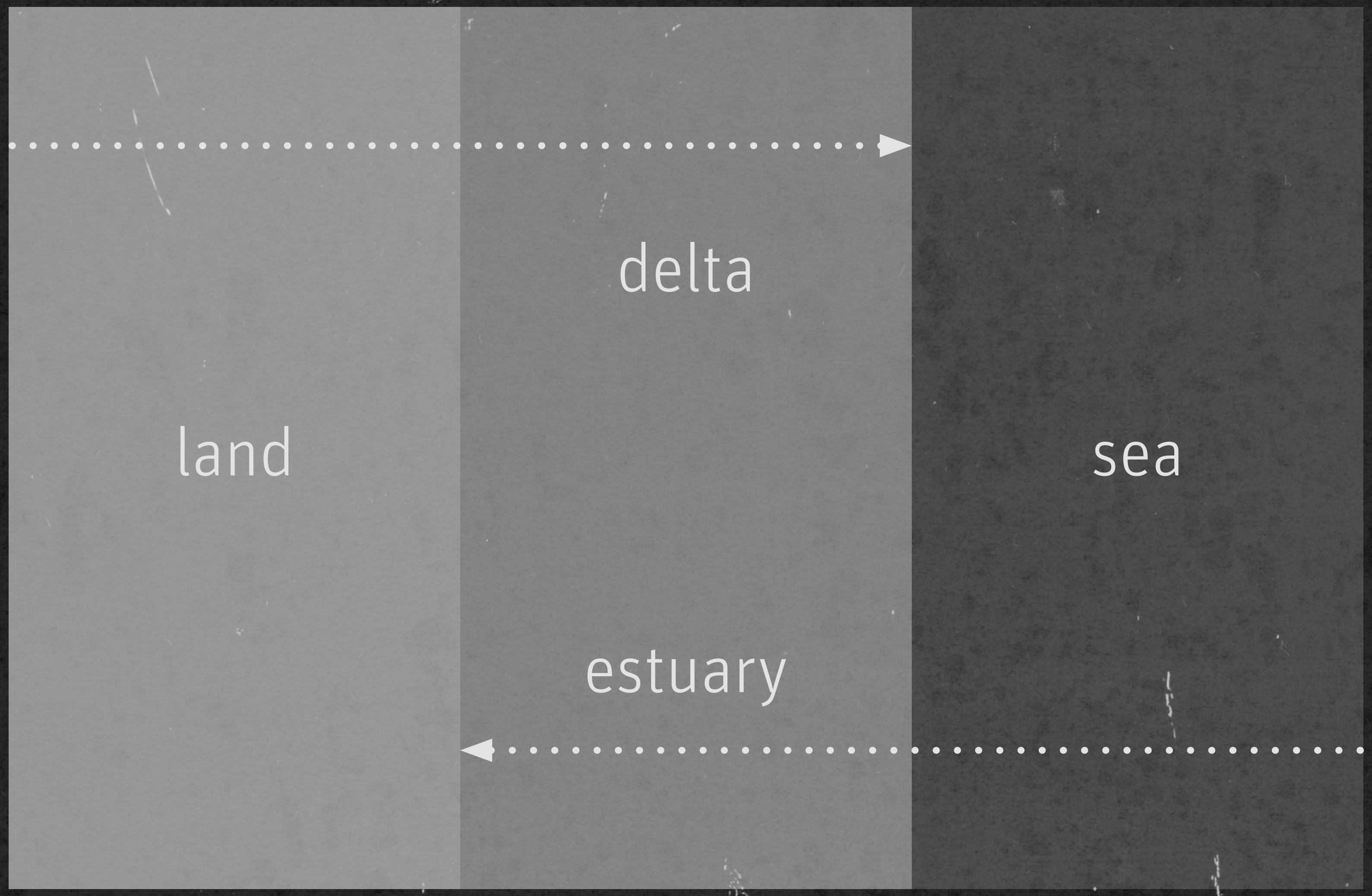
Kleinhans, M. (2021, September, 2). *What determines estuary planform shape, size, and channel-bar patterns?* [Online lecture]. Coast2Coast Zoominar. https://www.youtube.com/watch?v=ch_HP2Y7AQQ
Boyd, R., Dalrymple, R., & Zaitlin, B. A. (1992). Classification of clastic coastal depositional environments. *Sedimentary Geology, 80*(3-4), 139-150.

research - string figuring with figurations of wetness


tidal
basin
delta
tidal
estuary

Kleinhans, M. (2019, June 13). *Landspiegelstijging* [Conference presentation]. Kennisdag Regionale Waterkeringen 2019, Waternet, Amsterdam, the Netherlands. https://www.youtube.com/watch?v=8MHifaE62gw

research - string figuring with figurations of wetness



delta

land

sea

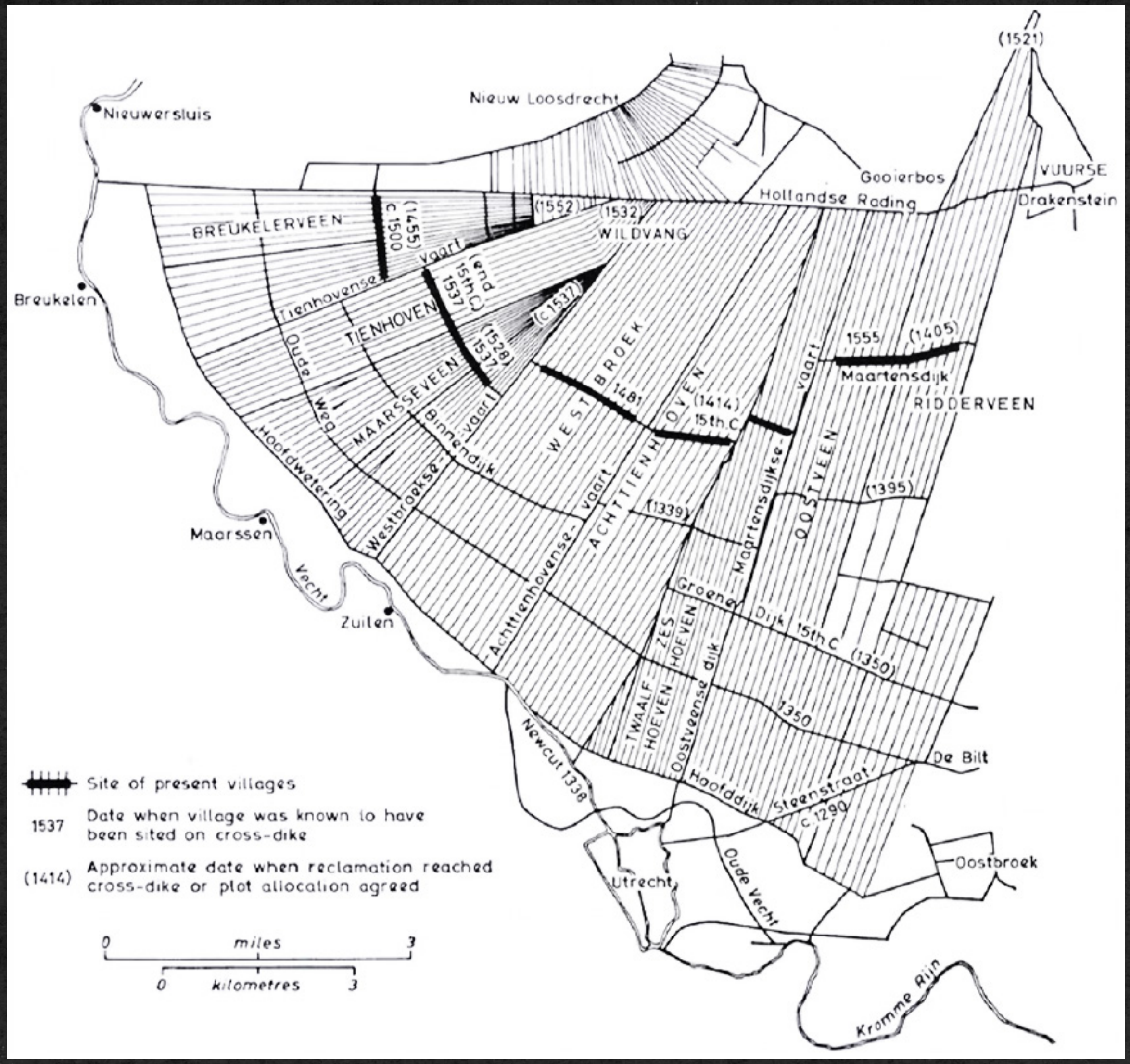
estuary

Da Cunha, D. (2019, February 20). *The Invention of Rivers* [Lecture]. Daniel Urban Kiley Lecture, Harvard GSD, Cambridge, Massachusetts, USA.

research - string figuring with figurations of wetness

In separating land from water,
land is made as property to be ‘productive’
so that wealth can be accumulated

—it becomes a mere surface, a surface that needs to expand;

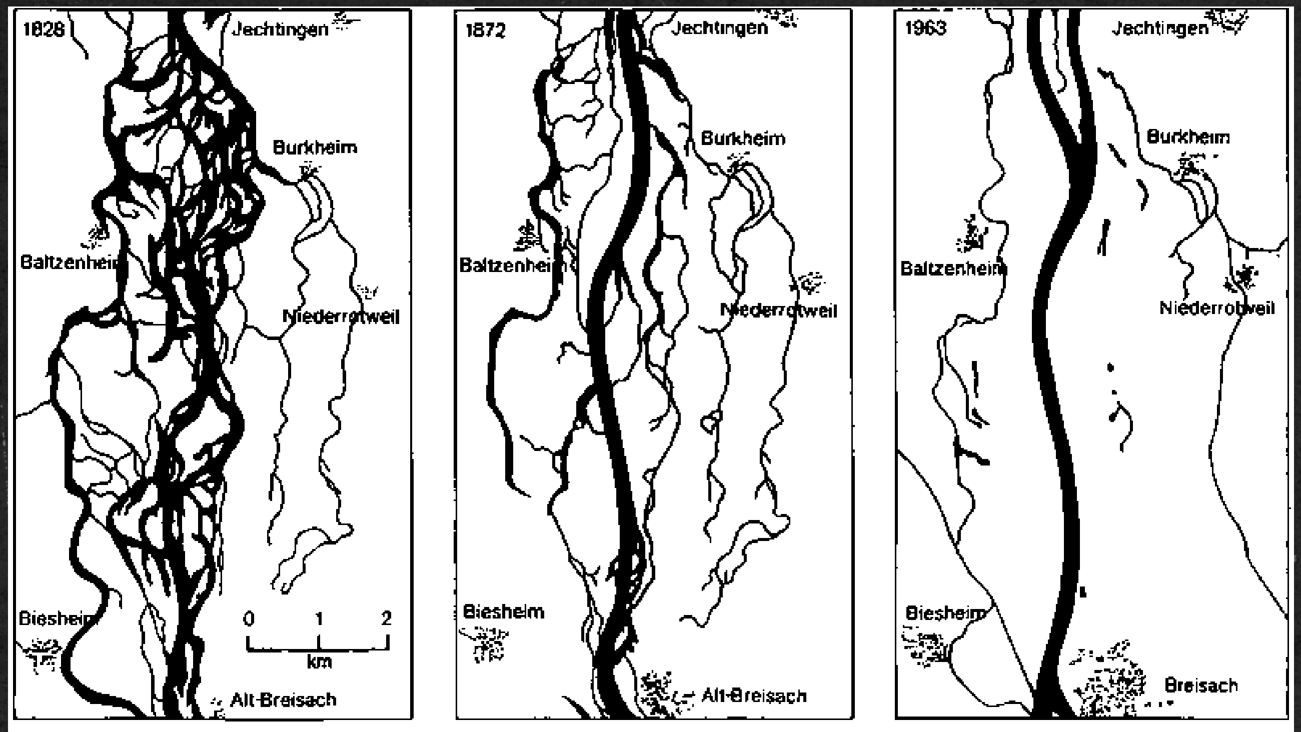

(1521)
Nieuw Loosdrecht
Nieuwersluis
Gooierbos
VUURSE
Hollandse Rading
Drakenstein
Breukelen
BREUKELERVEEN
(1455)
c 1500
(1552)
(1532)
WILDVANG
Tienhovense
vaart
(end 15th C)
1537
TIENHOVEN
(c 1532)
(1528)
1537
Oude Weg
MAARSSEVEEN
Binnenvaart
Binnendijk
WEST BROEK
1481
ACHTTIENHOVEN
(1414)
15th C
vaart
1555
(1405)
Maartensdijk
RIDDERVEEN
OOSTVEEN
(1395)
Hoofdwetering
Westbroekse-
Achttienhovense-vaart
(1339)
Maartensdijkse-
Maarssen
Vecht
Zuilen
Groene Dijk 15th C
(1350)
ZES HOEVEN
TWAALF HOEVEN
Oostveense dijk
1350
De Bilt
Newcut 1338
Hoofddijk
Steenstraat
c 1290
Utrecht
Oude Vecht
Oostbroek
Kromme Rijn
Site of present villages
1537 Date when village was known to have been sited on cross-dike
(1414) Approximate date when reclamation reached cross-dike or plot allocation agreed
0 miles 3
0 kilometres 3

Broekhoven, S., Barends, S. (1995). Drainage patterns in the dutch polder landscape [Illustration]. In F. Gaasbeek, (ed.), S. Broekhoven, S. Barends. In *De Bilt: geschiedenis en architectuur*. Kerckebosch.

research - string figuring with figurations of wetness

in separating water from land,
water is made productive for the flow of commodities
and to defend property

—it becomes a mere line, a line that needs to be straightened.


1828
Jechtingen
Burkheim
Baltzenheim
Niederrotweil
Biesheim
0 1 2
km
Alt-Breisach
1872
Jechtingen
Burkheim
Baltzenheim
Niederrotweil
Biesheim
Alt-Breisach
1963
Jechtingen
Burkheim
Baltzenheim
Niederrotweil
Biesheim
Breisach

The Upper Rhine at Breisach:
1828: before the river development, 1872: after the Tulla realignment and 1963: after further canalization.

International Commission for the Protection of the Rhine (1991). *Ecological master plan for the Rhine. International Commission for the Protection of the Rhine against Pollution.* Koblenz.

The Polder is the socio-ecological niche that is constructed

as a result of elites privatising commons

investing in the ‘reclamation’ of land from ungovernable wetlands *as property*

as a commodity to be productive, exchanged, and tax

as a mode to centralise their power and increase their wealth.

And, yet the anarchy of the wetland never ceases.

Beneath the gridded landscape of the the Dutch Delta
lies an ungovernable wetland that is always already
offering resistence, undoing property and sovereignty.

Beneath the polder, the wetlands!

SOVS les Pavés, la plage

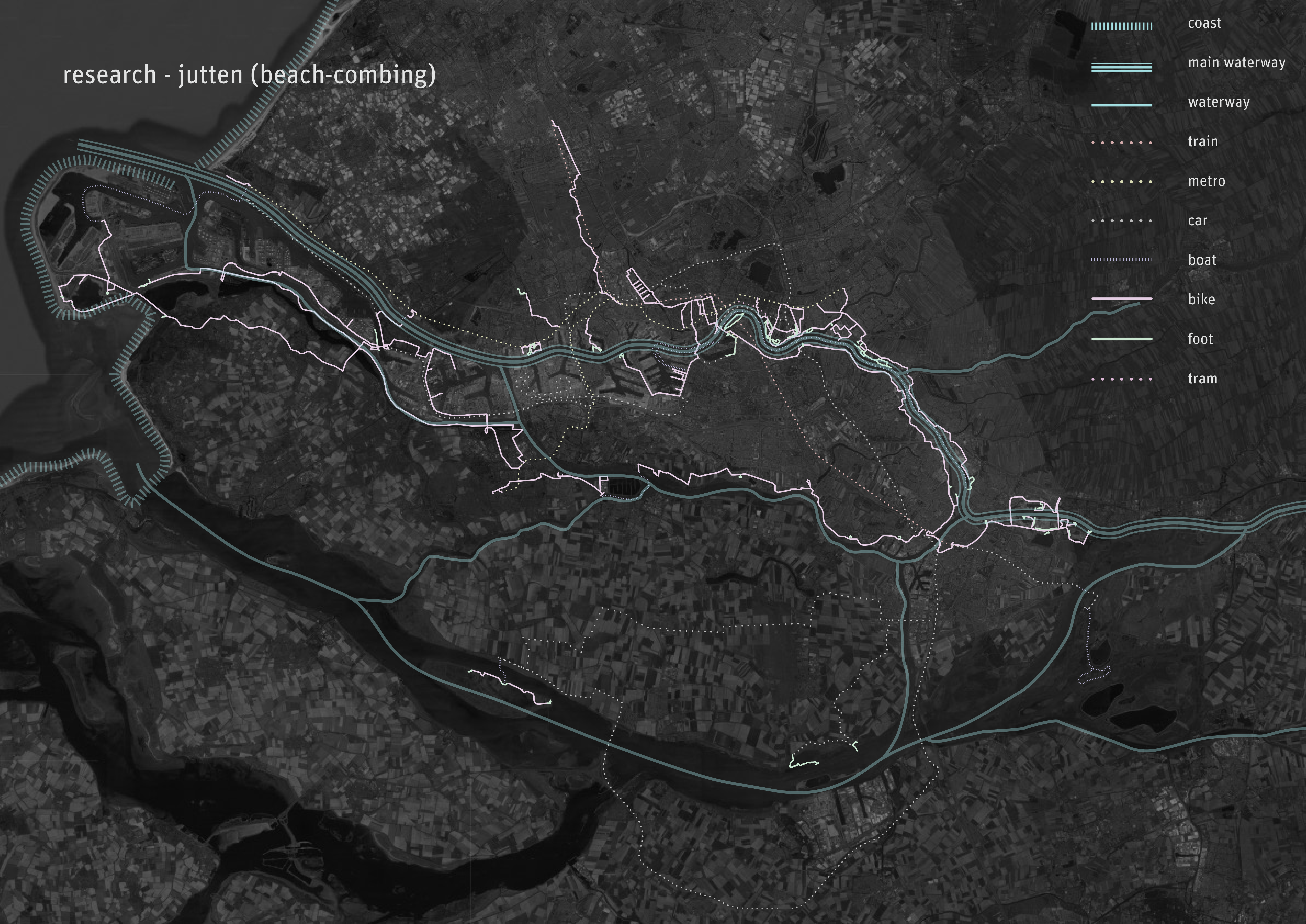
No Author (n.d.). *Under the cobblestones, the beach; situationist graffity in Paris* [Photograph].

Polder abolitionism:

is to figure out how to struggle together
alongside the all the non-human forces and earthly beings

to unmake the erasures of the past by building at our collective liberation
in undoing the separation between land and water.

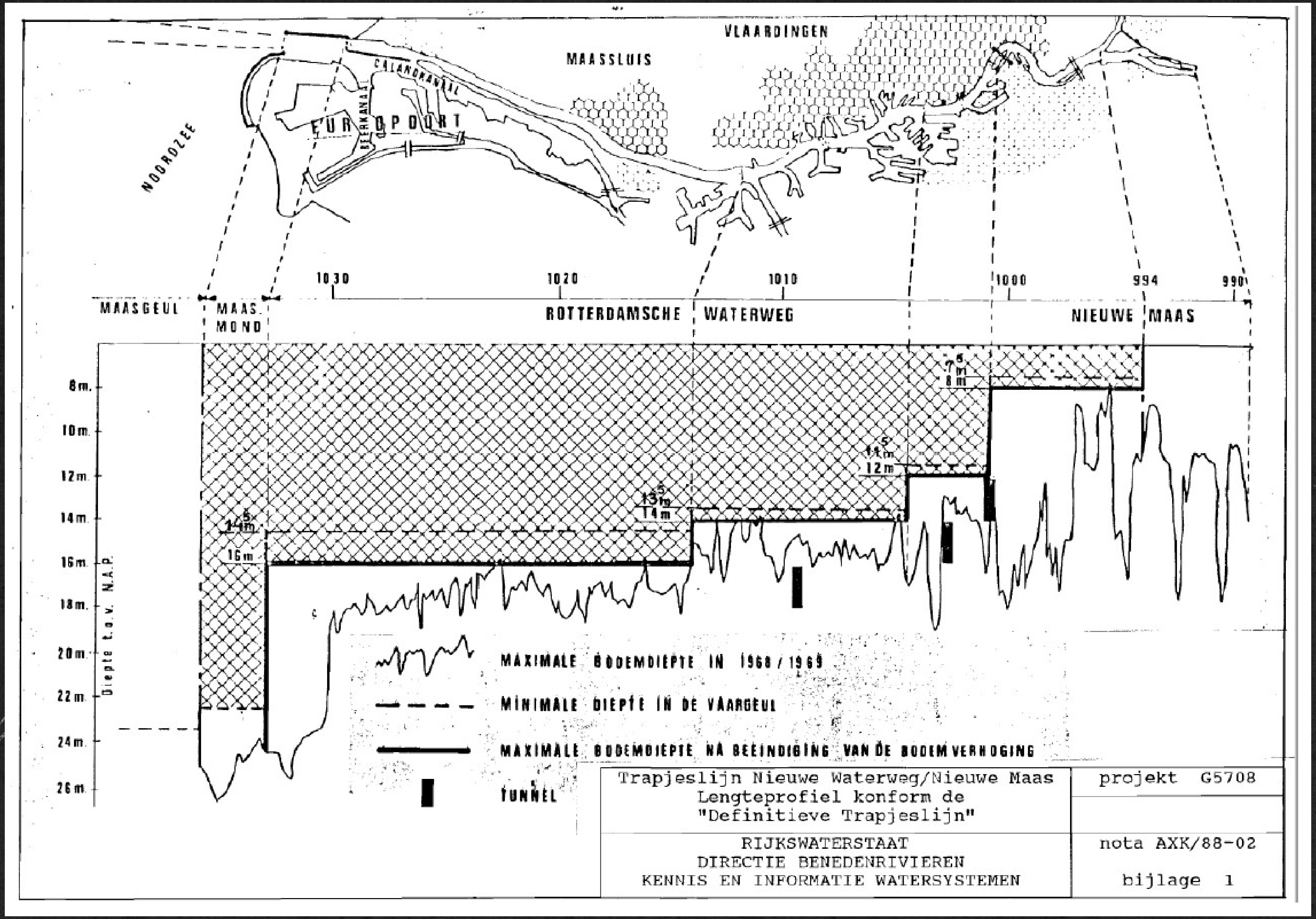
research - jutten (beach-combing)


coast
main waterway
waterway
train
metro
car
boat
bike
foot
tram

design - speculative fabulation of wet futures

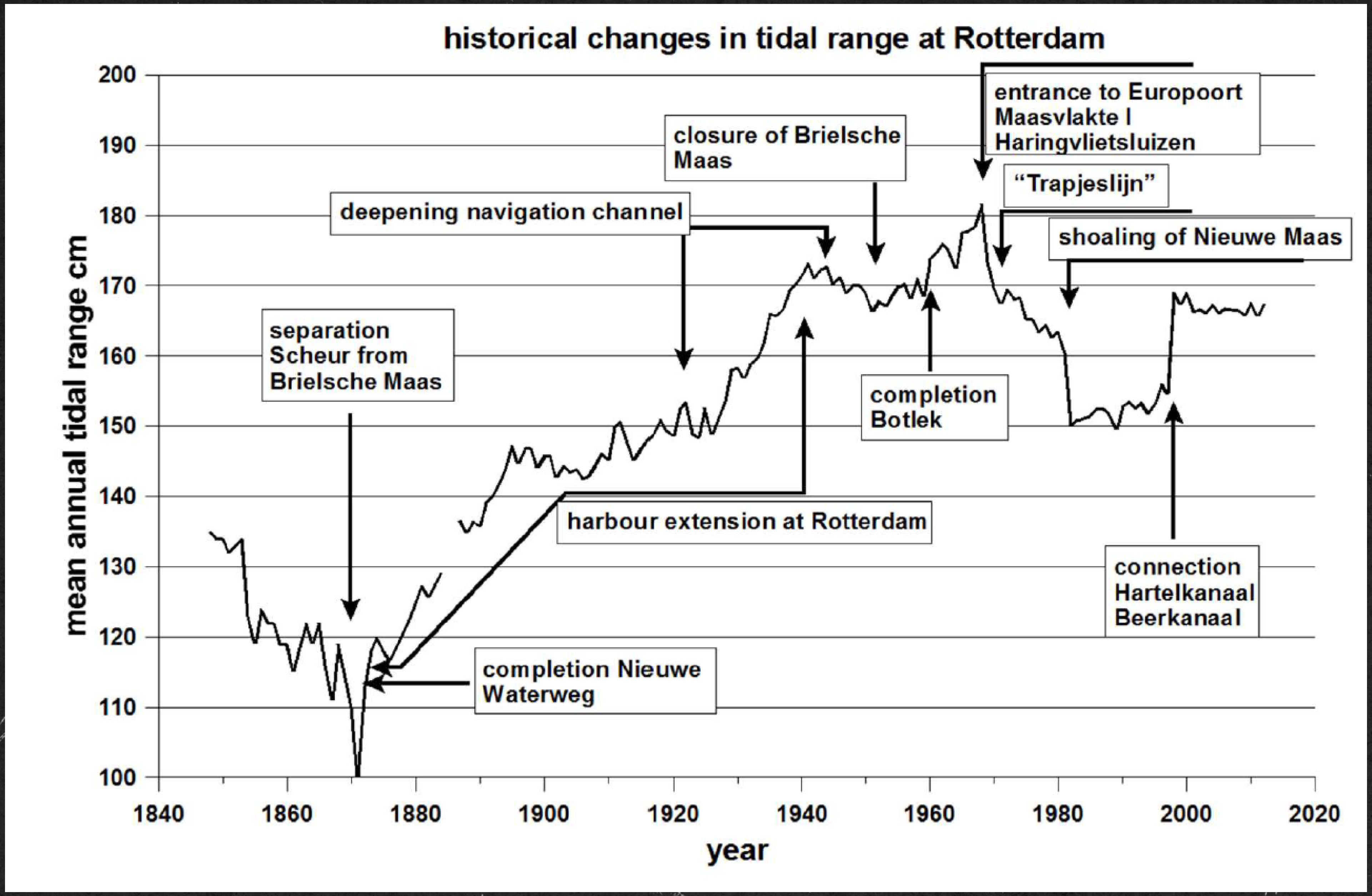
Rijkswaterstaat. (n.d.). *Maeslantkering* [Photograph]. https://media.nu.nl/m/ln0x01qal0dt_wd854/maeslantkering.jpg

design - speculative fabulation of wet futures


VLAARDINGEN
MAASSLUIS
CALANDKANAAL
BEERKANAAL
EUROPOORT
NOORDZEE
1030
1020
1010
1000
994
990
MAASGEUL
MAAS MOND
ROTTERDAMSCHE WATERWEG
NIEUWE MAAS
8m.
10m.
12m.
14m.
16m.
18m.
20m.
22m.
24m.
26m.
Diepte t.o.v. N.A.P.
14,5m
16m
13,5m
14m
11,5m
12m
7,5m
8m
MAXIMALE BODEMDIEPTE IN 1968/1969
MINIMALE DIEPTE IN DE VAARGEUL
MAXIMALE BODEMDIEPTE NA BEEINDIGING VAN DE BODEMVERHOGING
TUNNEL
Trapjeslijn Nieuwe Waterweg/Nieuwe Maas
Lengteprofiel konform de
"Definitieve Trapjeslijn"
projekt G5708
RIJKSWATERSTAAT
DIRECTIE BENEDENRIVIEREN
KENNIS EN INFORMATIE WATERSYSTEMEN
nota AXK/88-02
bijlage 1

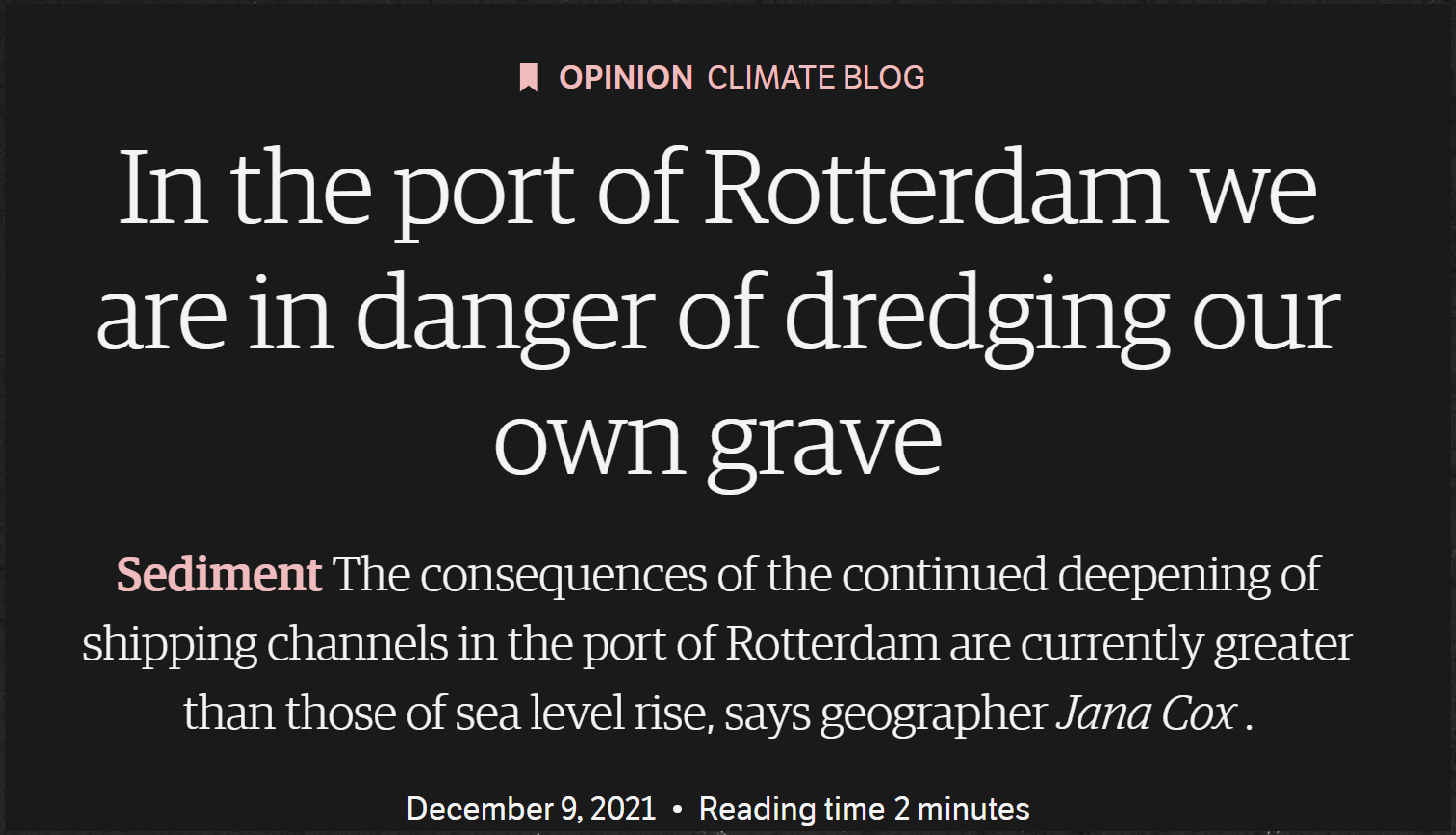
Rijkswaterstaat (1988). *Trapjeslijn Nieuwe Waterweg / Nieuwe Maas* [Diagram].

design - speculative fabulation of wet futures



Historical changes in tidal range at Rotterdam at the Nieuwe Maas between 1850 and 2010 (Paalvast, 2014, p. 15).
Paalvast, P. (2014). *Ecological studies in a man-made estuarine environment, the port of Rotterdam* [Doctoral dissertation, Radboud University]. https://hdl.handle.net/2066/127521

ARC'TERYX
Door onze projecten hier
houden we droge voeten.



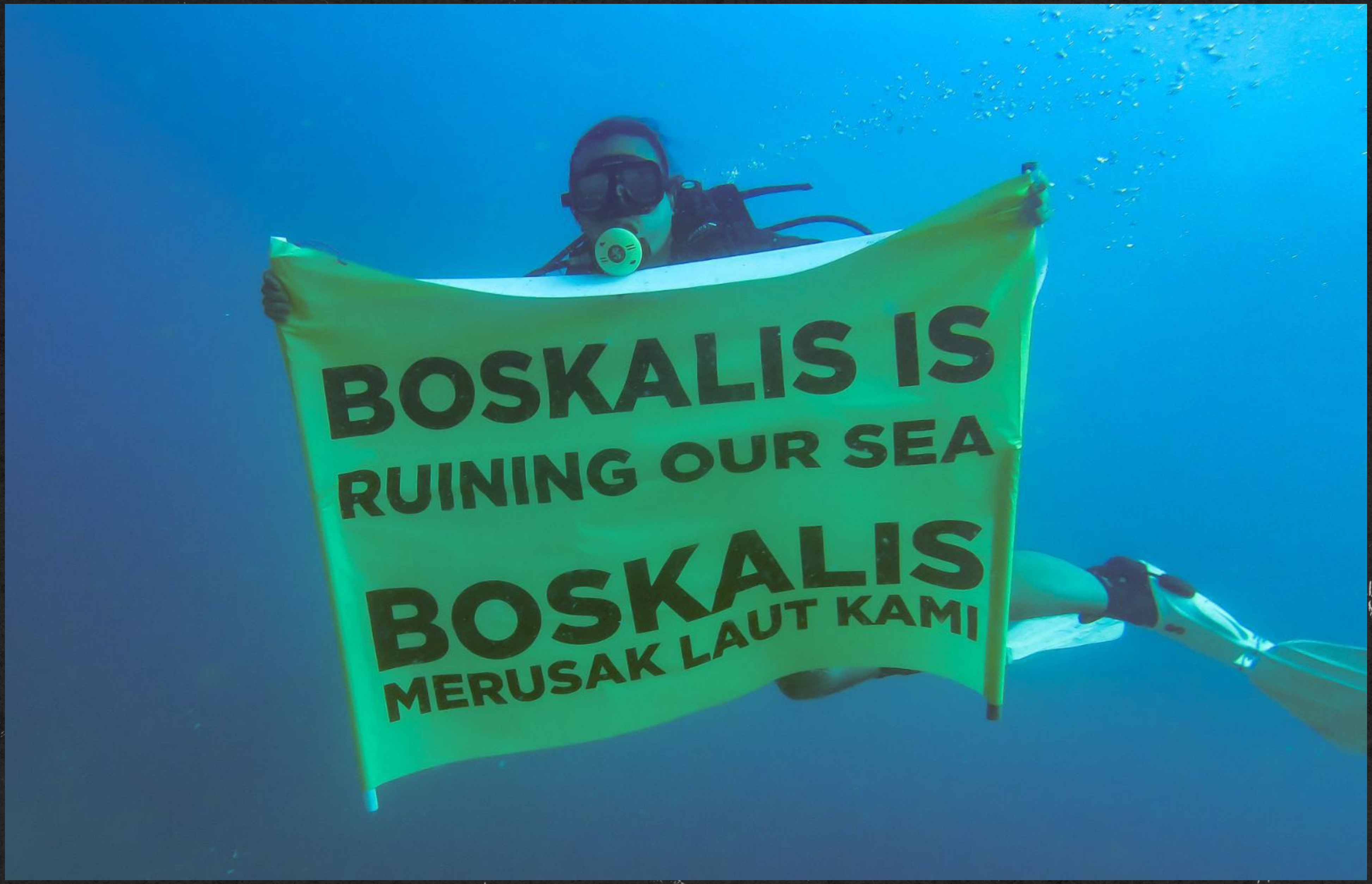
OPINION CLIMATE BLOG

In the port of Rotterdam we are in danger of dredging our own grave

Sediment The consequences of the continued deepening of shipping channels in the port of Rotterdam are currently greater than those of sea level rise, says geographer *Jana Cox* .

December 9, 2021 • Reading time 2 minutes

Cox, J. (2021, December 9). In de Rotterdamse haven dreigen we ons eigen graf uit te baggeren [Screenshot]. *NRC*. https://www.nrc.nl/nieuws/2021/12/09/in-de-rotterdamse-haven-dreigen-we-ons-eigen-graf-uit-te-baggeren-a4068445 design - speculative fabulation of wet futures

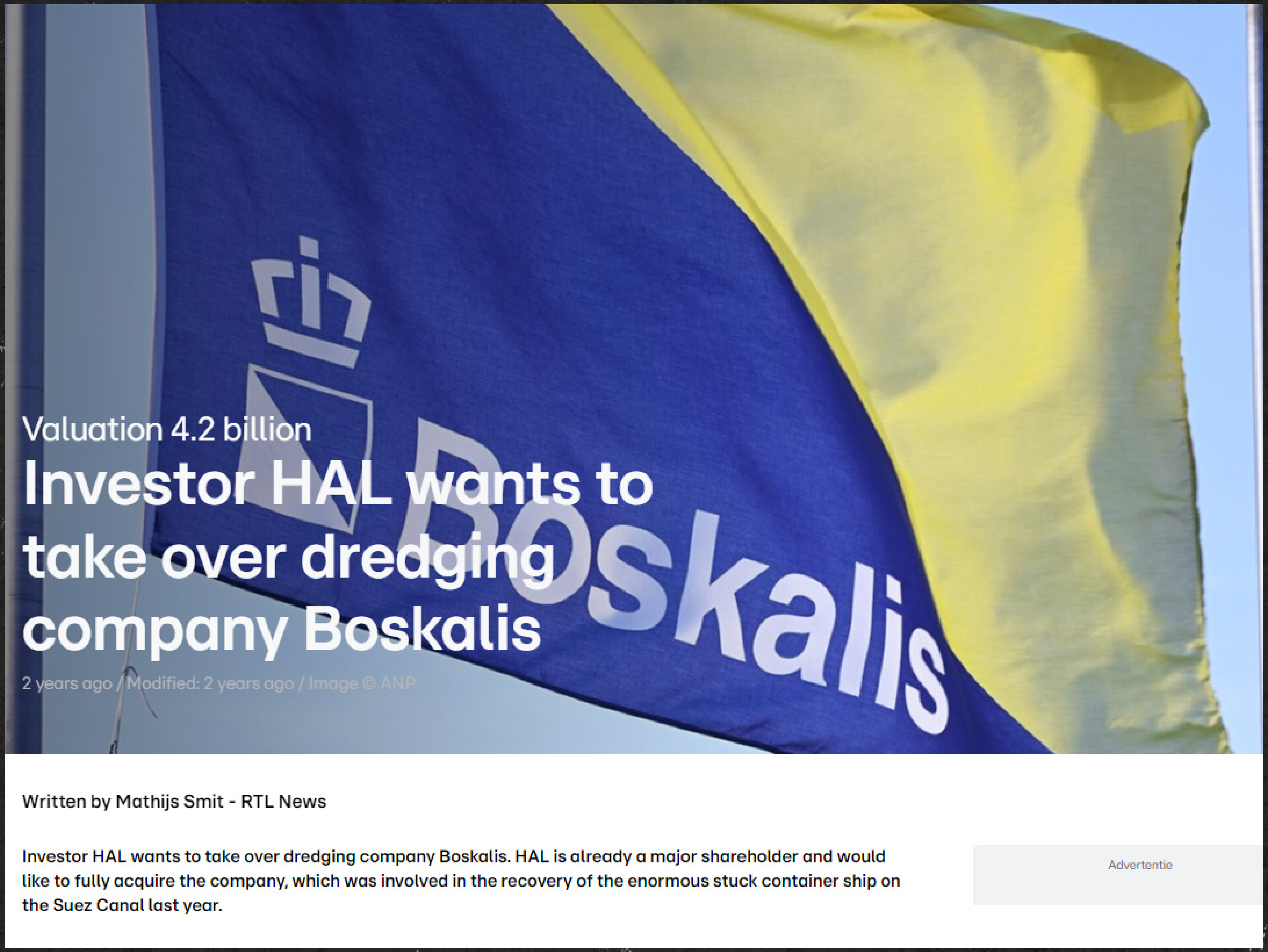

BOSKALIS IS
RUINING OUR SEA
BOSKALIS
MERUSAK LAUT KAMI

WALHI South-Sulawesi (2023, August 31). *Underwater protest against Boskalis by fishermen in Makassar* [Photograph]. https://walhisulsel.or.id/4075-fakta-ekologi-volume-vi-ekosistem-dirusak-pasir-laut-dikorupsi/

design - speculative fabulation of wet futures

WE DUG UP YO DIR
CLIMATE JUSTICE = SOCIAL JUSTICE

Fotopersbureau Busink (2022, May 20). *Demonstratie van Extinction Rebellion bij Boskalis in Papendrecht* [Photograph]. https://www.ad.nl/dordrecht/demonstranten-blokkeren-hoofdkantoor-boskalis-met-een-vlag-zwaaien-levert-al-gesprek-met-directeur-op~a1628e34/



Valuation 4.2 billion

Investor HAL wants to take over dredging company Boskalis

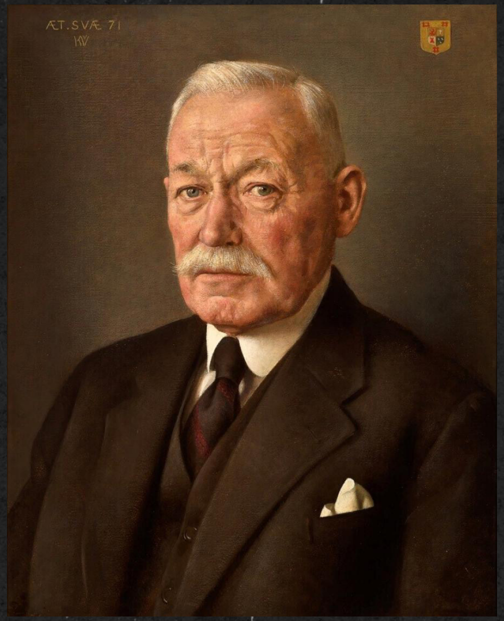
2 years ago / Modified: 2 years ago / Image © ANP

Written by Mathijs Smit - RTL News

Investor HAL wants to take over dredging company Boskalis. HAL is already a major shareholder and would like to fully acquire the company, which was involved in the recovery of the enormous stuck container ship on the Suez Canal last year.

Smit, M. (2022). Investeerder HAL wil baggeraar Boskalis overnemen [Screenshot]. *RTL*. https://www.rtl.nl/economie/bedrijven/artikel/5293783/investeerder-hal-overname-baggeraar-boskalis-42-miljard-euro

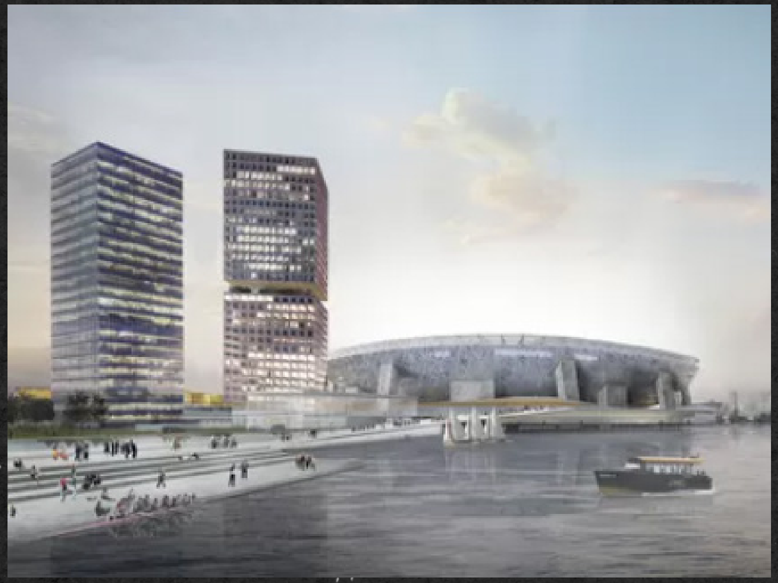
design - speculative fabulation of wet futures



Mr. Drs. H. Langman

van Veen, K. (1944). *Portrait of Willem van der Vorm* [Painting]. Museum Boijmans van Beuningen, Rotterdam, the Netherlands.
ANP. (1966). *Nico van der Vorm (r) als nieuwe directuer van de Holland Amerika lijn 1966* [Photograph]. https://www.rtl.nl/geld-en-werk/artikel/3776821/rijke-families-zo-vergaarden-de-van-der-vorms-9-miljard-euro
Dijkstra, R. (n.d.). *Martijn van der vorm* [Photograph]. https://www.rtl.nl/economie/bedrijven/artikel/185266/opgestapte-hal-baas-niet-zomaar-een-topman

design - speculative fabulation of wet futures



van Duivenbode, O. (2021). *Depot Boijmans van Beuningen* [Photograph]. MVRDV. https://mvrdv.com/media/uploads/91_Depot_mei_2021_%C2%A9Ossip.jpg?
MAD Architects. (2023). *Danshuis* [Rendered image].
MAD Architects. (2022). *FENIX Museum of Migration* [Rendered image].

Hoogendoorn A., Droom en Draad (2023). *Opening moments contained by Thomas J Price* [Photograph].
WDJA. (2024). *Transformatie Pakhuis Santos Fotomuseum* [Photograph].
OMA. (2016). *Impression Feyenoord City* [Photograph].

design - speculative fabulation of wet futures

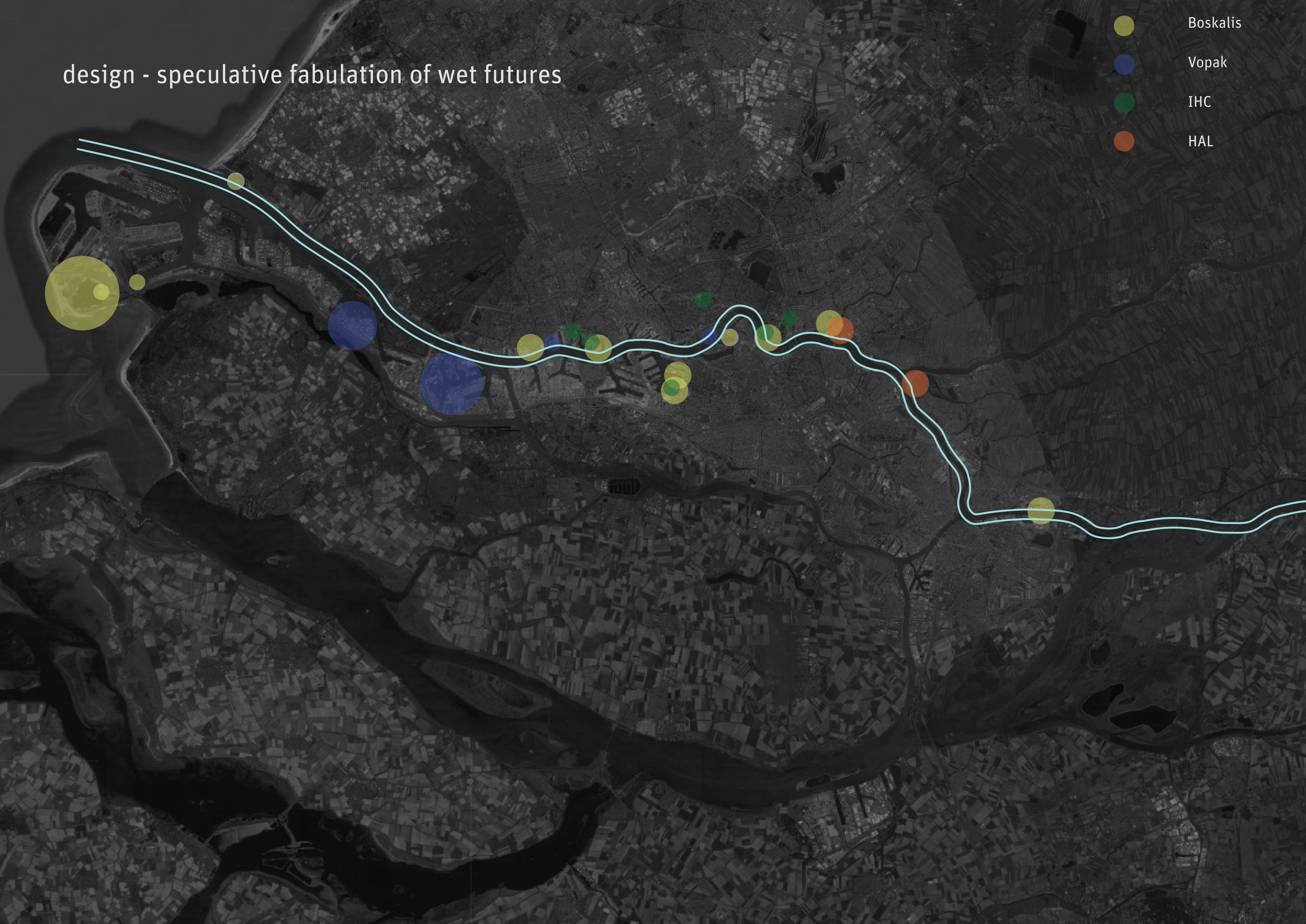
tracing the interests of the van der Vorm family

as a form of tracing the workings of *deltaic power*

and the *politics of the Polder*

in Rotterdam’s urban political ecology

design - speculative fabulation of wet futures


Boskalis
Vopak
IHC
HAL

we have to scrutinise this form of power:

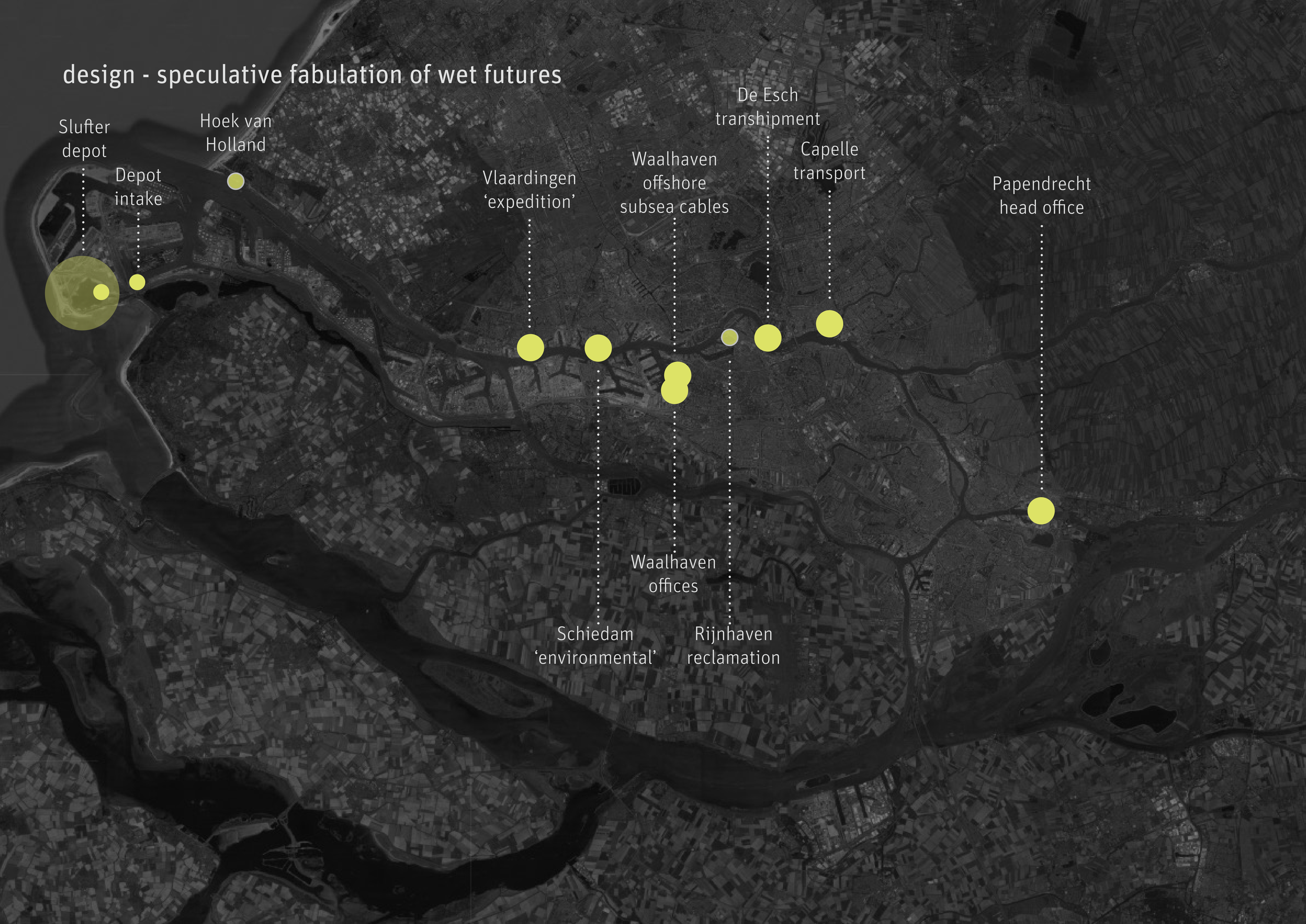
profit is pursued—at what cost—and who benefits?

and is the entire population of Rotterdam about to lose?

activism against a politics
that undermines our capacity to act on the future
has been concentrated against the fossil fuel industry

the dredging industry has in recent memory
escaped such antagonism

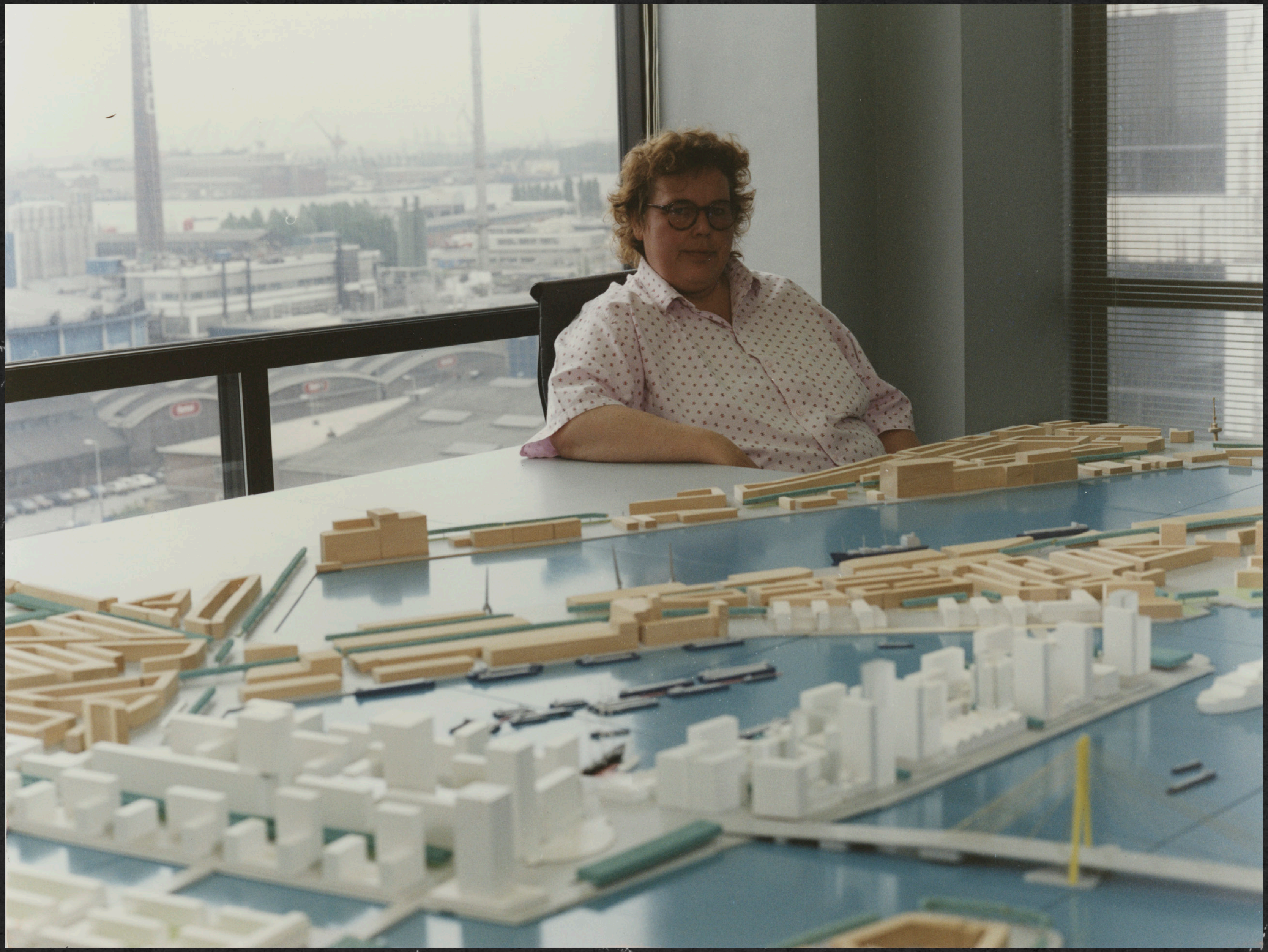
design - speculative fabulation of wet futures


Slufter depot
Depot intake
Hoek van Holland
Vlaardingen 'expedition'
Waalhaven offshore subsea cables
De Esch transhipment
Capelle transport
Papendrecht head office
Waalhaven offices
Schiedam 'environmental'
Rijnhaven reclamation

design - speculative fabulation of wet futures

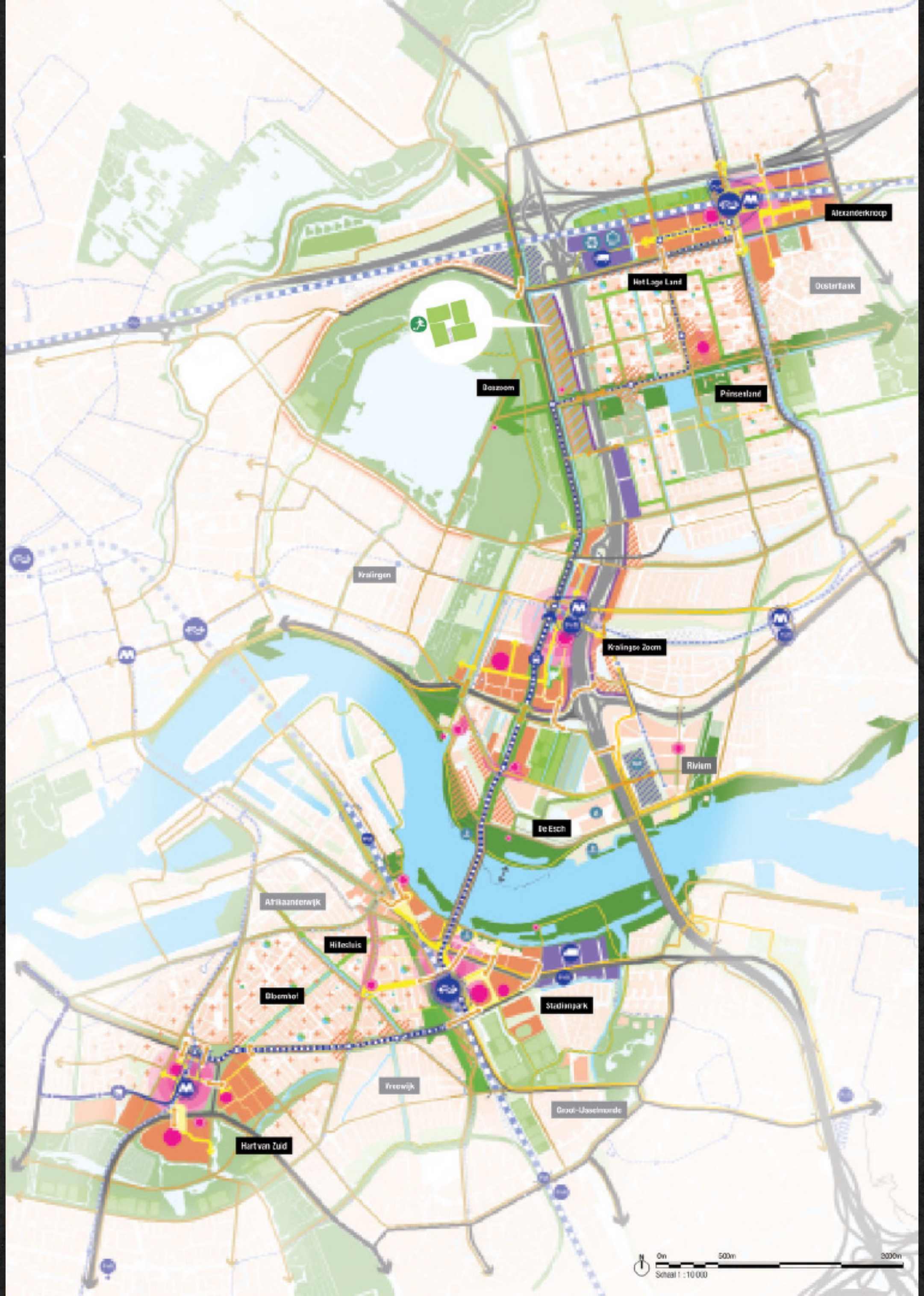
de Esch
transhipment

design - speculative fabulation of wet futures



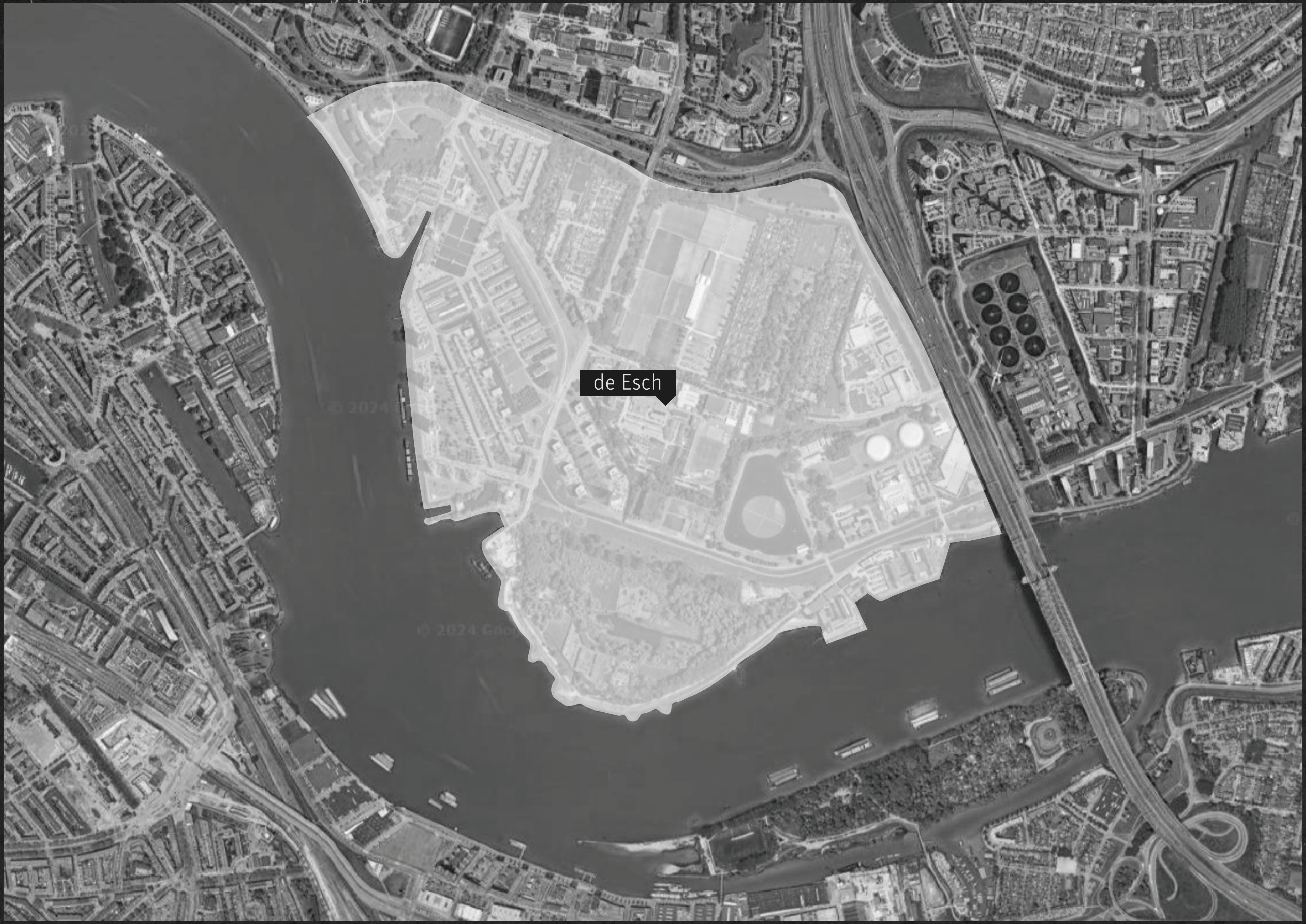
Ontwikkelingsbedrijf Rotterdam. (1991). *Riek Bakker, directeur Stadsontwikkeling, met op de voorgrond een maquette van de Kop van Zuid* [Photograph]. Stadsarchief Rotterdam, Rotterdam, The Netherlands.
https://stadsarchief.rotterdam.nl/zoek-en-ontdek/themas/kop-van-zuid/

design - speculative fabulation of wet futures


Alexanderknoop
Het Lage Land
Oosterflank
Boszoom
Prinsenland
Kralingen
Kralingse Zoom
Rivium
De Esch
Afrikaanderwijk
Hillesluis
Bloemhof
Stadionpark
Vreewijk
Groot-IJsselmonde
Hart van Zuid
N
0m
500m
2000m
Schaal 1 : 10 000

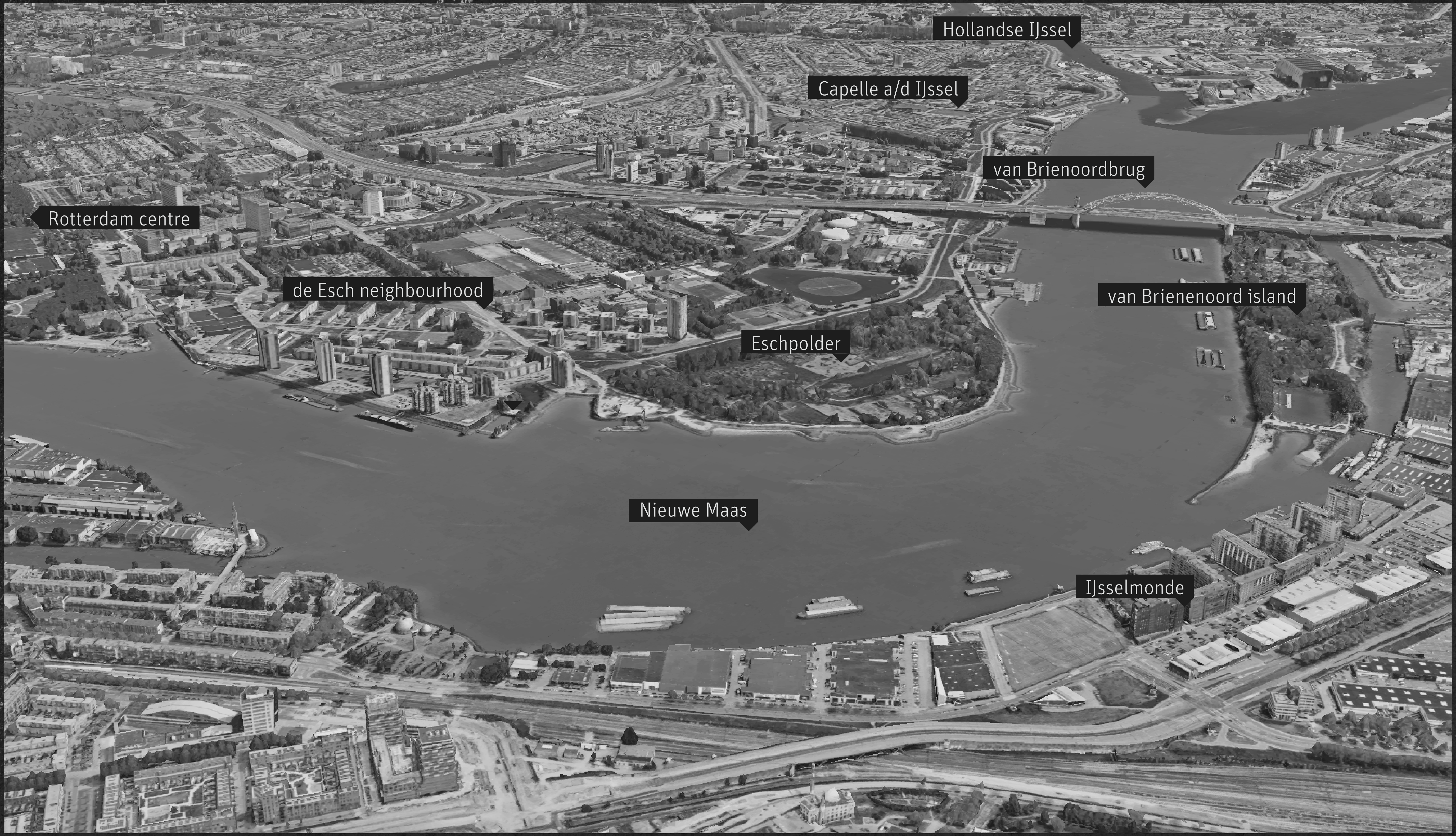
Gemeente Rotterdam & Studio for New Realities (2023). *Aangepaste omgevingvisiekaart* [Map]. In Gemeente Rotterdam, *Omgevingsvisie Rotterdam. Ontwerp-herziening mei 2023. Addendum Oostflank* (p. 16). Gemeente Rotterdam.

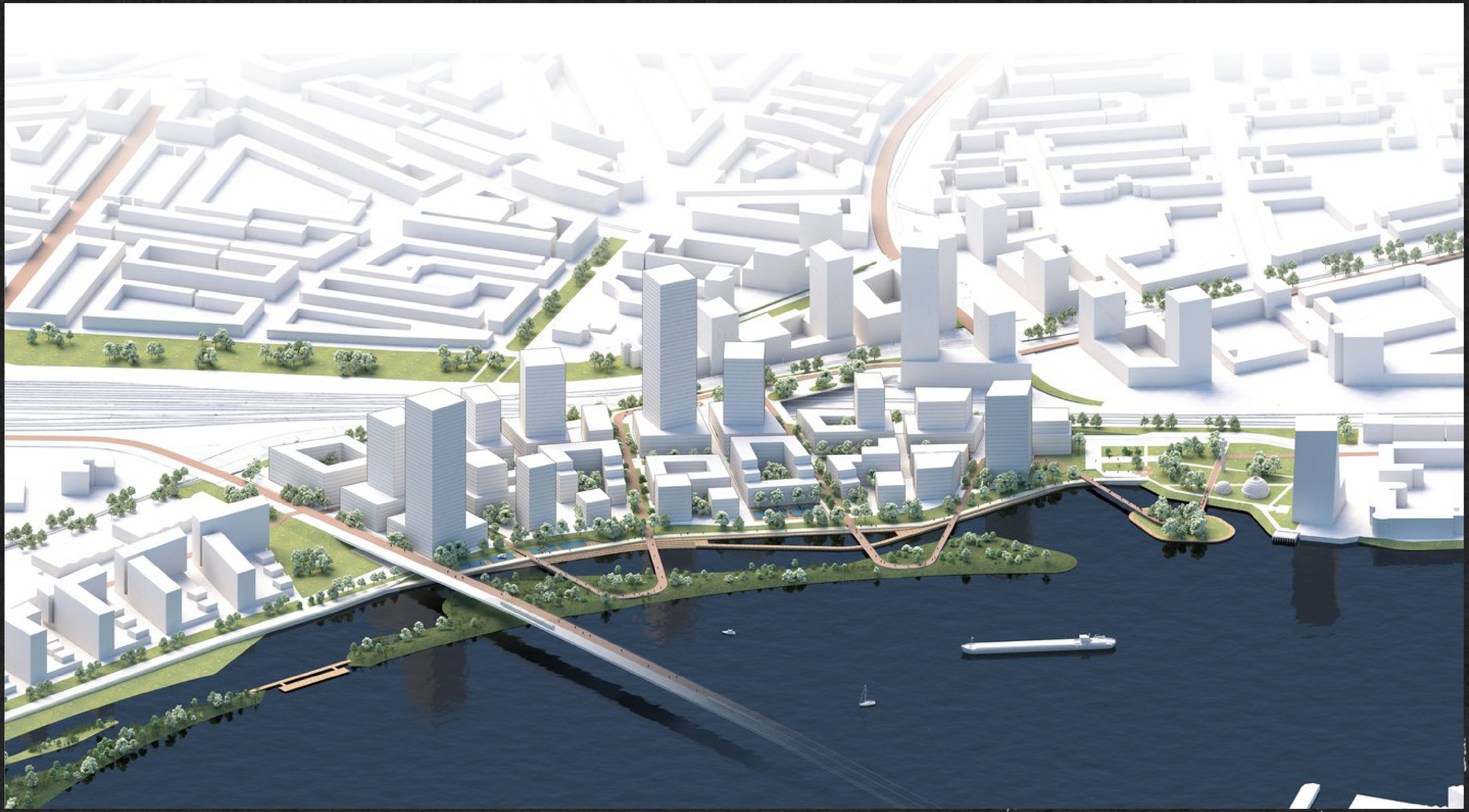
design - site



de Esch, Rotterdam East

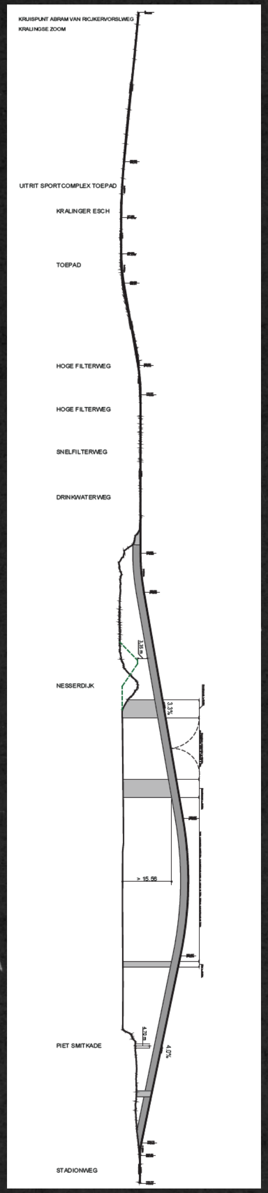
design - site

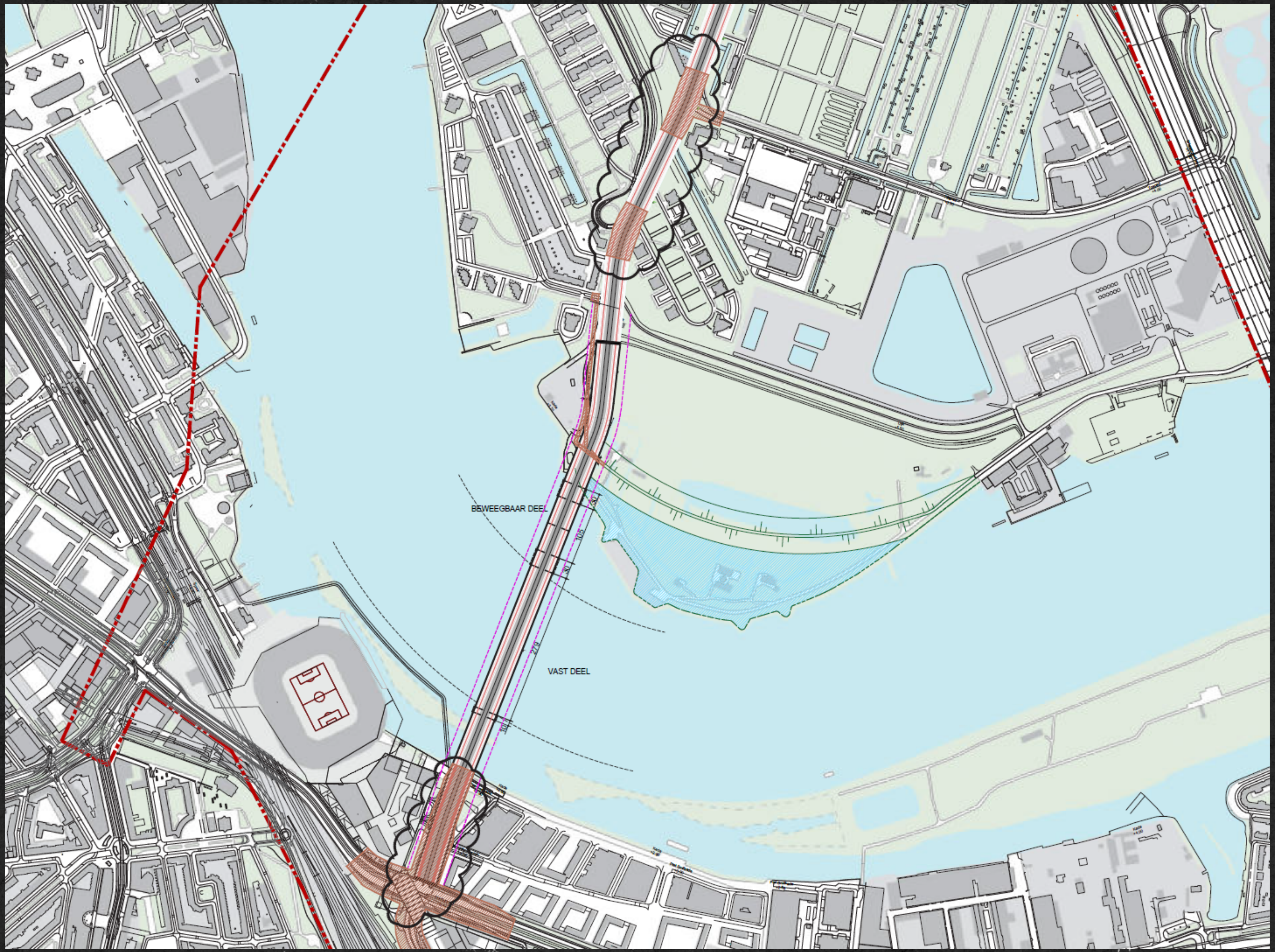

Hollandse IJssel
Capelle a/d IJssel
van Brienoordbrug
Rotterdam centre
de Esch neighbourhood
van Brienenoord island
Eschpolder
Nieuwe Maas
IJsselmonde



OMA, EFFEKT, LOLA. (n.d.). *Feyenoord City Waterside* [Image]. OMA. https://www.oma.com/projects/feyenoord-city-waterside

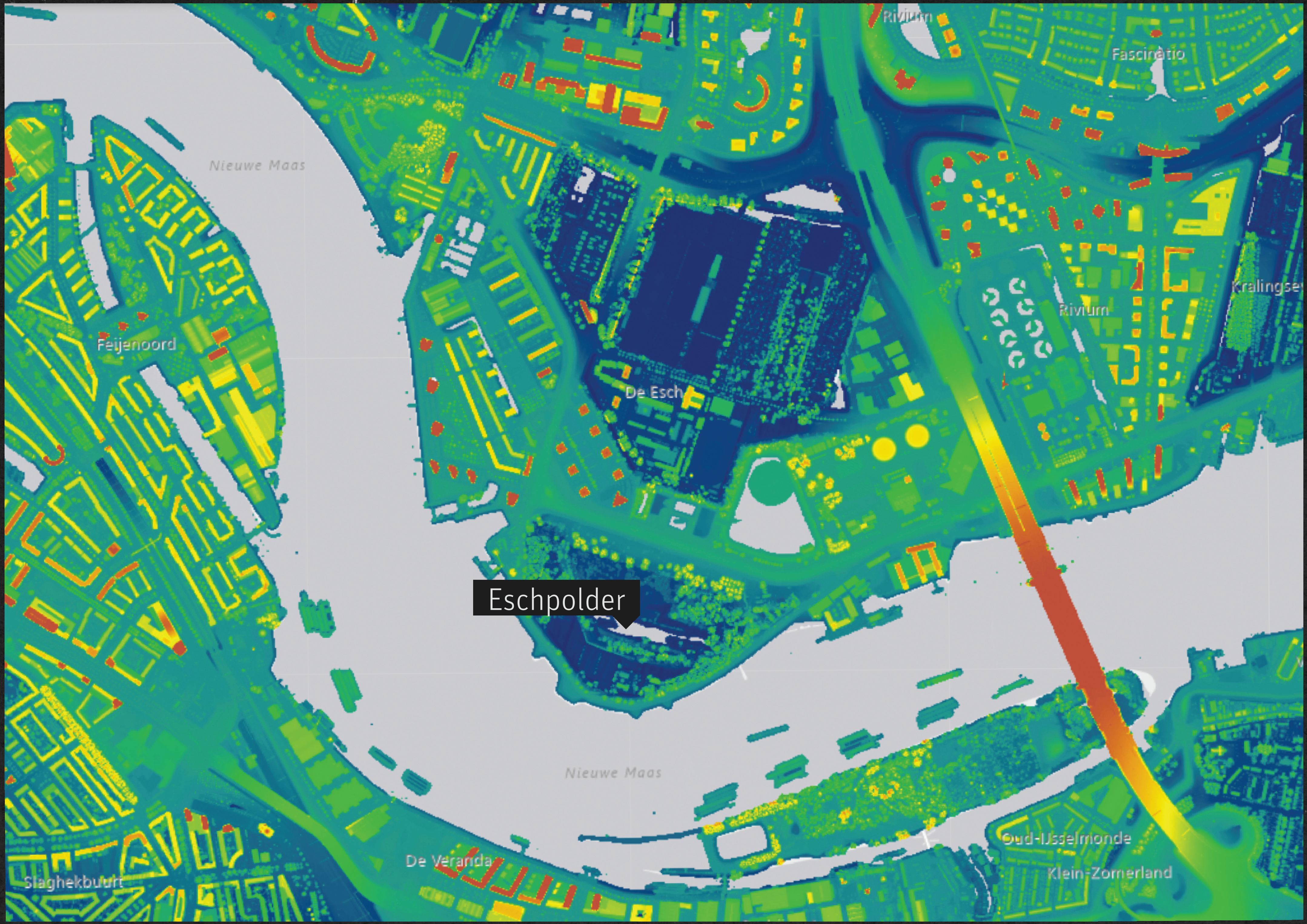
design - site


KRUISPUNT ABRAM VAN RIJCKEVORSELWEG
KRALINGSE ZOOM
UITRIT SPORTCOMPLEX TOEPAD
KRALINGER ESCH
TOEPAD
HOGE FILTERWEG
HOGE FILTERWEG
SNELFILTERWEG
DRINKWATERWEG
3,35 m
NESSERDIJK
3.3%
> 15.56
4,70 m
PIET SMITKADE
4.0%
STADIONWEG

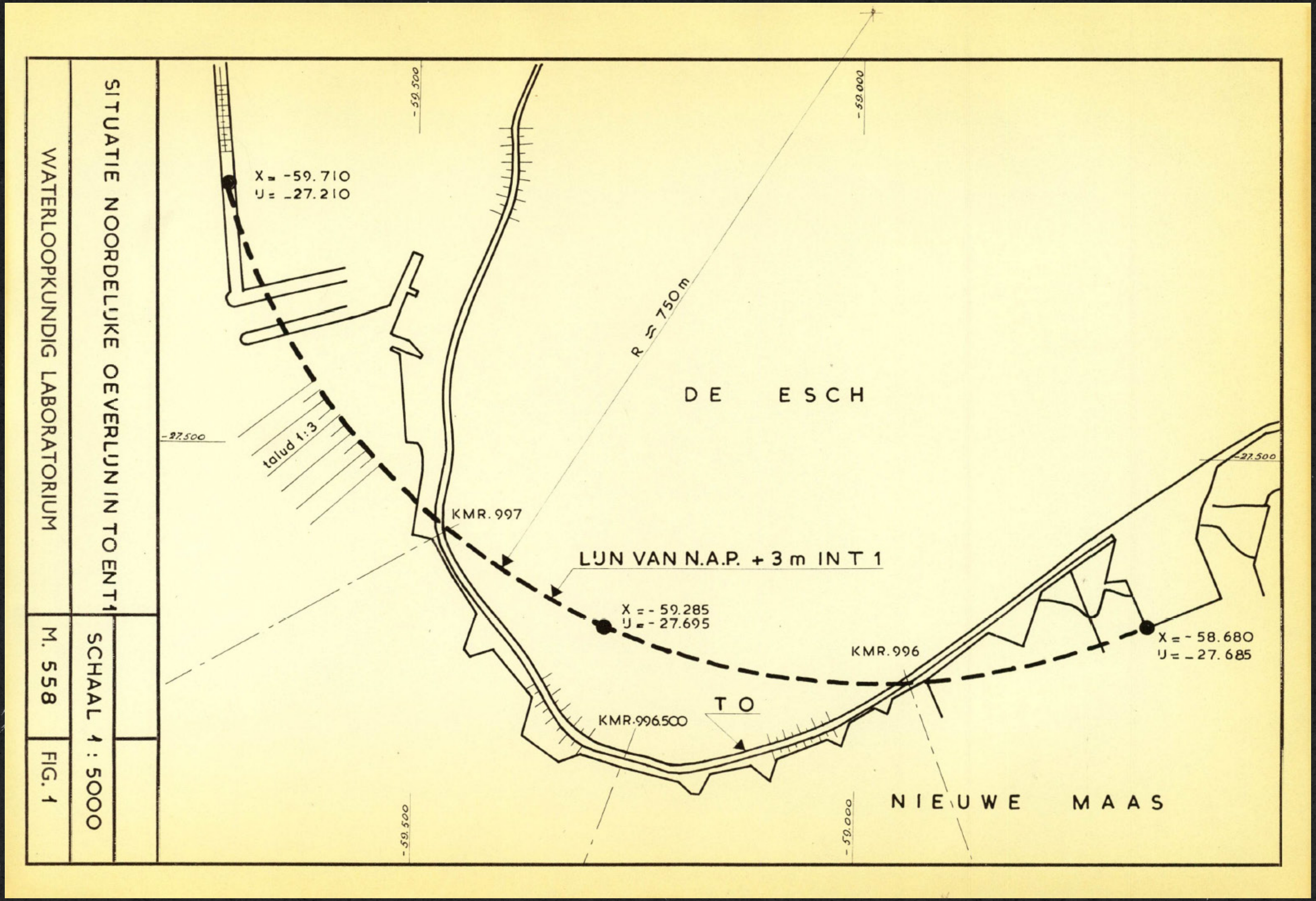

BEWEEGBAAR DEEL
VAST DEEL

Arcadis & VenhoevenCS. (2021). *Schetsontwerp N2-Z3 Noord Brede Klep* [Technical drawing]. In Arcadis & VenhoevenCS, *Rapport Inpassing Oeververbinding Zeef. Mirt Verkenning Oeververbindingen Regio Rotterdam | Werkgroep Inpassing* (pp. 20-21).

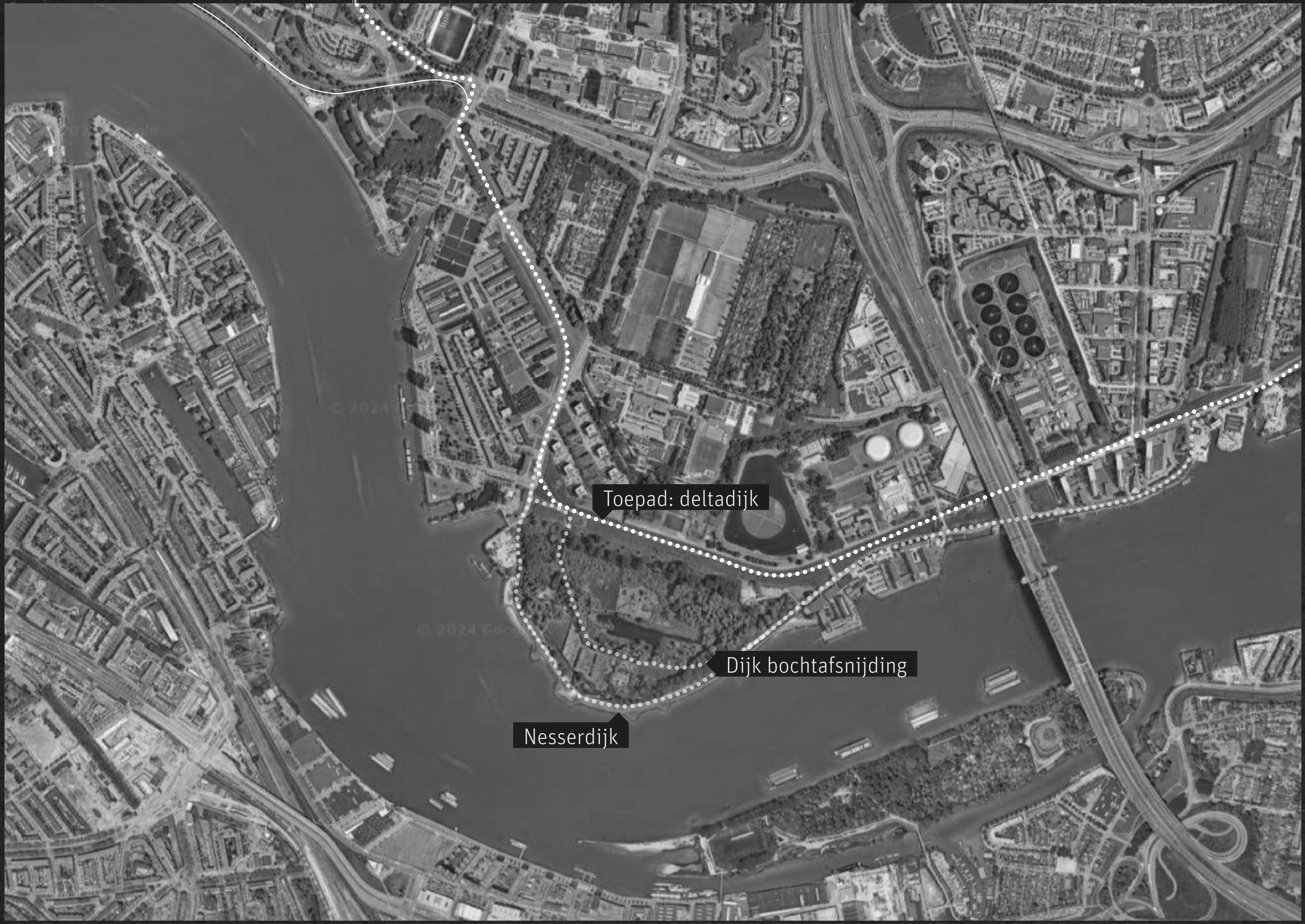
design - site


Rivium
Fascinatio
Nieuwe Maas
Feijenoord
Rivium
Kralingse
De Esch
Eschpolder
Nieuwe Maas
De Veranda
Slaghekbuurt
Oud-IJsselmonde
Klein-Zomerland

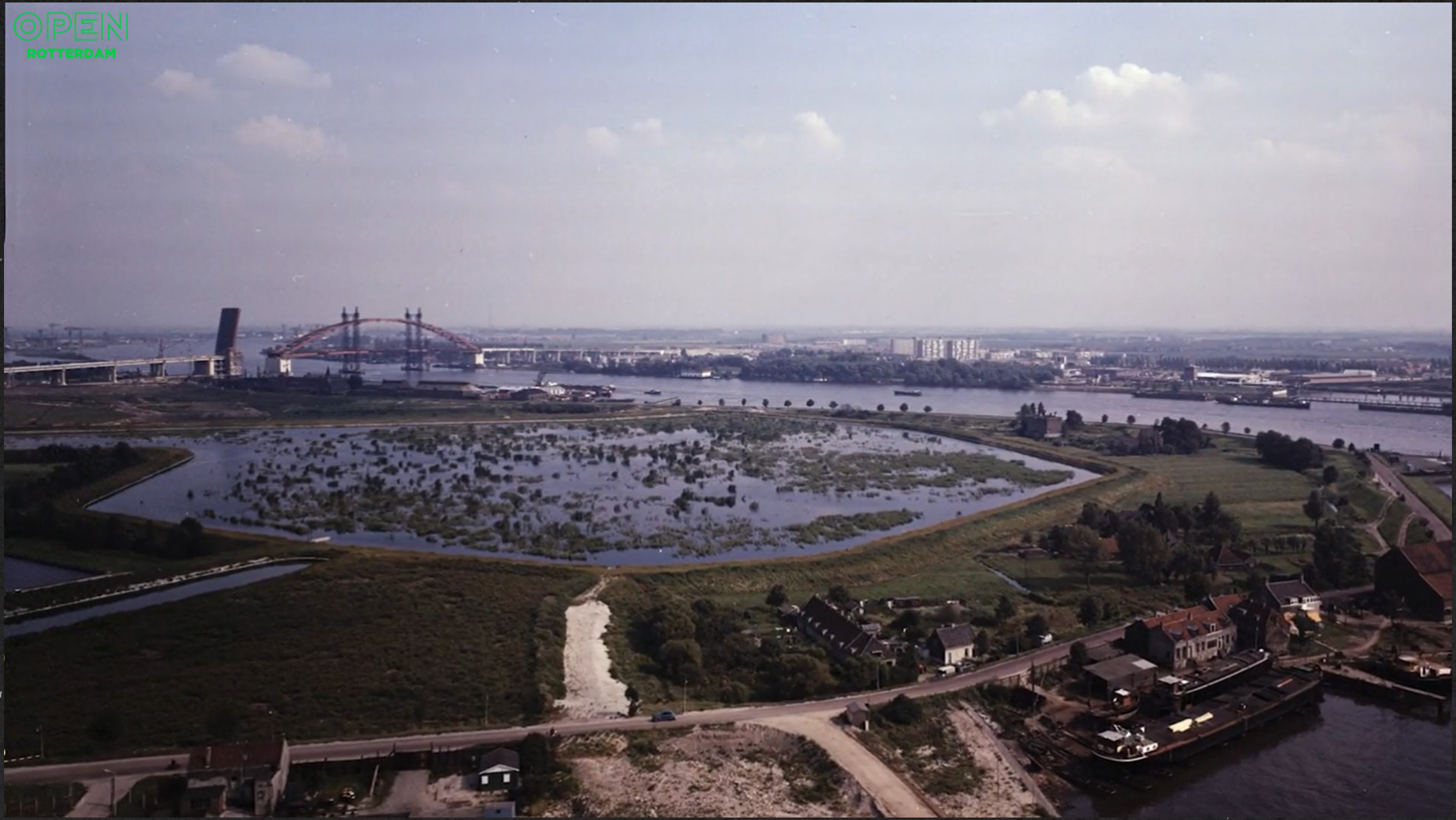
design - site


SITUATIE NOORDELIJKE OEVERLIJN IN TO EN T1
WATERLOOPKUNDIG LABORATORIUM
SCHAAL 1 : 5000
M. 558
FIG. 1
-59.500
-59.000
-27.500
X = -59.710
Y = -27.210
R ≈ 750 m
DE ESCH
talud 1:3
KMR. 997
LIJN VAN N.A.P. + 3 m IN T 1
X = -59.285
Y = -27.695
KMR. 996
X = -58.680
Y = -27.685
TO
KMR. 996.500
NIEUWE MAAS

Waterloopkundig Laboratorium. (1958). *Situatie Noordelijke oeverlijn in TO en T1* [Diagram]. In Waterloopkundig Laboratorium, *Bochtafsnijding de Esch, verslag modelonderzoek*.


Toepad: deltadijk
Dijk bochtafsnijding
Nesserdijk

design - site



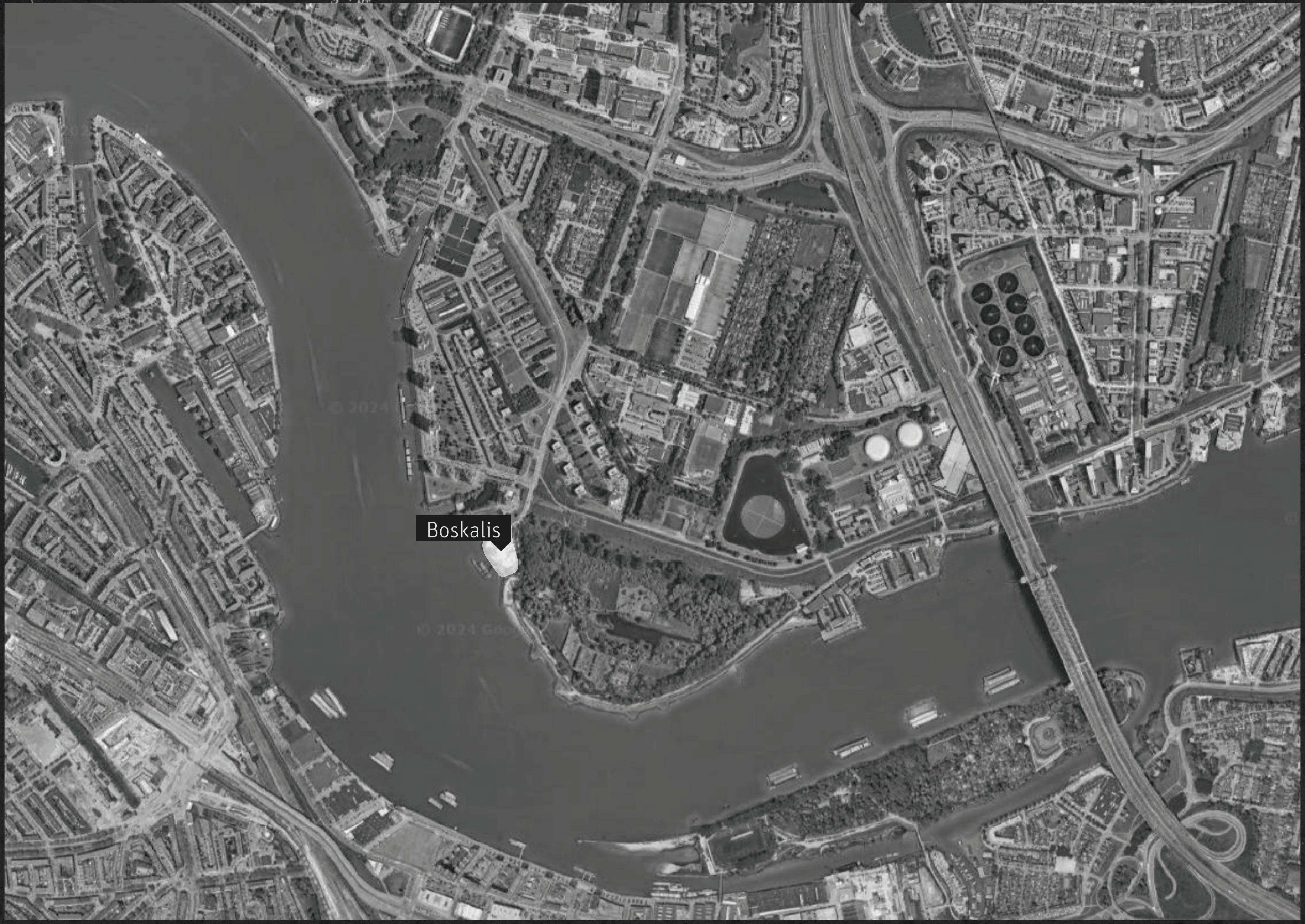
Wessels, H. (2023). *De Eschpolder dankt haar bestaan aan chemisch afval, ode aan de Esch* [Screenshot]. Open Rotterdam.
https://openrotterdam.nl/chemisch-afval-maakte-van-de-eschpolder-een-criminele-verzamelplek-maar-ook-een-natuurgebied/

a wetland
developed that
would never have
existed if toxic
dredging sludge
had not been
dumped there at
the time

design - site

SAVE MY ESCH
Bruggen gevaarlijk Niet betreden
GEEN BRUG!
TunneL = ViSiE
WIJ STEMMEN TEGEN DE BRUG
WIJ VECHTEN VOOR NATUURBEHOUD
WIJ STEUNEN DE BEWONERS VAN DE ESCH
#RedDeEsch
RED HET GROENE HART
UW BORD OOK HIER?
STOP
GOEDKOOP = DUUR KOOP

Actievoerleg Oeververbinding [@oeververbinding010]. (2023, December 5). Street theater protest at the Rotterdam city hall [Photograph]. Instagram. https://www.instagram.com/p/C0fBB24o_zQ/?img_index=9
Dijkstra, R. (2023, September 9). Een menselijke slinger van ruim 200 actievoerders strijdt voor het behoud van polder De Esch [Photograph]. AD. https://www.ad.nl/rotterdam/menselijke-slinger-van-300-meter-markeert-welk-groen-moet-wijken-voor-nieuwe-brug-absoluut-belachelijk~acc06969/


Boskalis
© 2024 Google

Boskalis site for the transhipment of sediments place for *wetland commoning*:

transformation-through-occupation of the Boskalis site
the barricades function as sites of insurgent social reproduction
towards wetland communisation and polder abolitionism

if the occupation stands, the inhabitation of the site can institutionalise
prefigure the resurgence of an autonomous wetland culture

a laboratory for worlding: this is a place of material, architectural,
agricultural, culinary, cultural and social experimentation

design - institute for radical wetland cultures: allies

DON'T MESS WITH DE ESCH

RECHT OP DE STAD

Buurtcollectief De Esch

RAAD VOOR TEGENSPRAAK

MaMA

HET ACTIE FONDS

TENT

Super-Actief
'ECH WEL ROTTERDAMS WELZIJN!'

HET WOON PROTEST

BASISSCHOOL DE ESCH

OCCUPY EUR

BLUE CITY

Kunstinstituut Melly

DE ESCH
Openbare basisschool

PL+S P.NT

TOOLS+ACTION

SUPERUSE

Reakt PG
Werken aan je toekomst

DELTASTAD

Nieuwe Instituut

Stad in de Maak

Rotterdams Klimaat Initiatief

OPEN ROTTERDAM

RIJNMOND

nai010 uitgevers publishers

WORM

vers beton

GREENPEACE

Platform Rotterdamse Volkstuinen

WIJK COOPERATIE

GroenWaarde

Vereniging Bewoners Hoge Filterweg

groen 010

milieudefensie
voor veranderaars

ARK REWILDING NEDERLAND

WWF

buiten
— plaats
brienen
— oord

atv toepad

FOSSIEL VRIJ NL

RUIMTE VOOR LEVENDE RIVIEREN

FRIDAYS FOR FUTURE NEDERLAND

urgenda
SAMEN SNELLER DUURZAAM

WERKPLAATS BUURMAN MATERIALEN

vrije bond
anarchistische zelforganisatie

doe-het-zelf WerkPlaats

design - institute for radical wetland cultures: antagonists

Nationaal Coördinator
Terrorismebestrijding en Veiligheid
Ministerie van Justitie en Veiligheid

Boskalis

HES
International

Van Oord
Marine ingenuity

Port of
Rotterdam

CONTRA
TERRORISME
EXTREMISME
RADICALISERING

VAR
VeiligheidsAlliantie
regio Rotterdam

ROS
Zand- en Grindhandel B.V.

Royal IHC

VVD

Gemeente
Rotterdam

fd.

OM

Leefbaar
Rotterdam

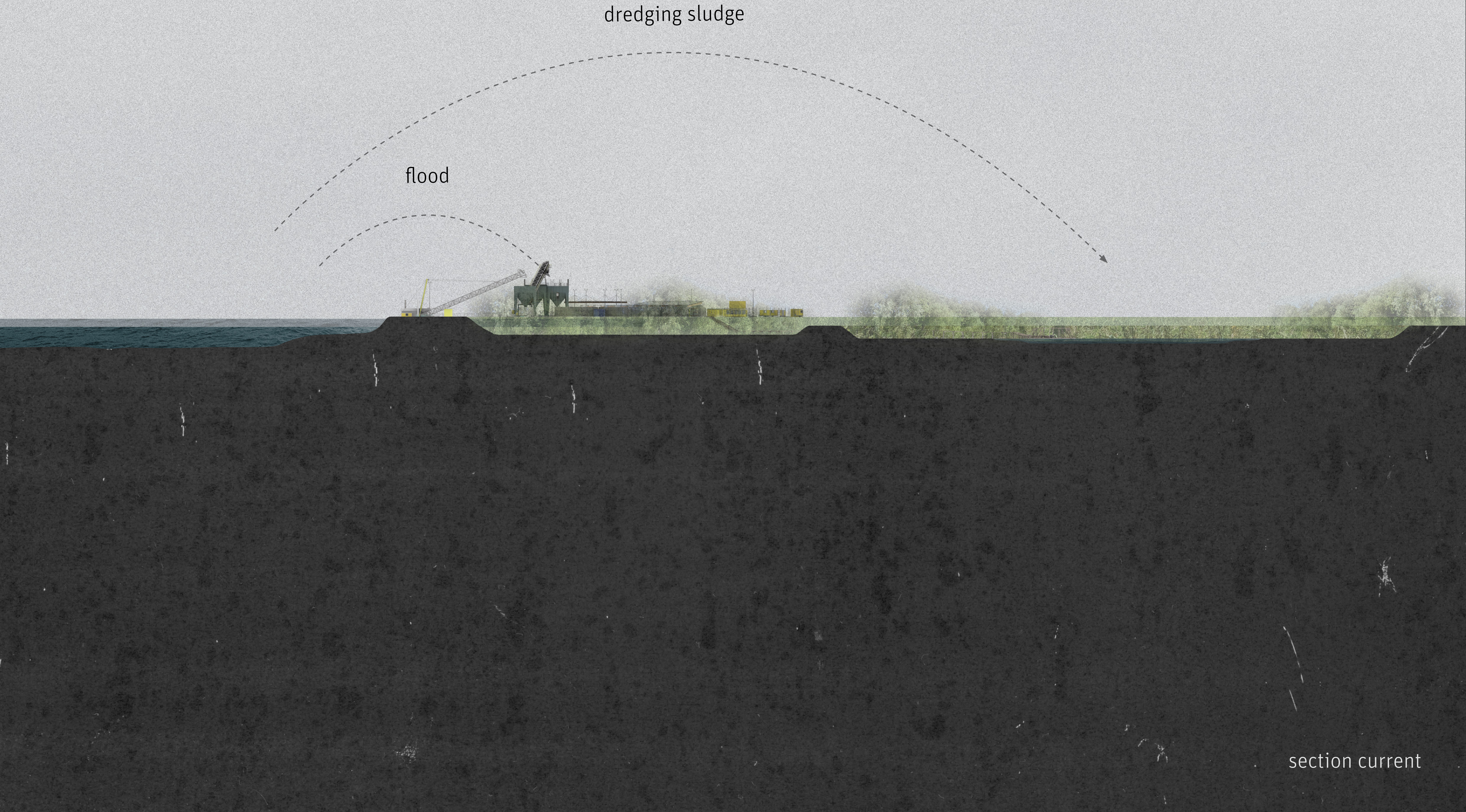
D66

Vopak

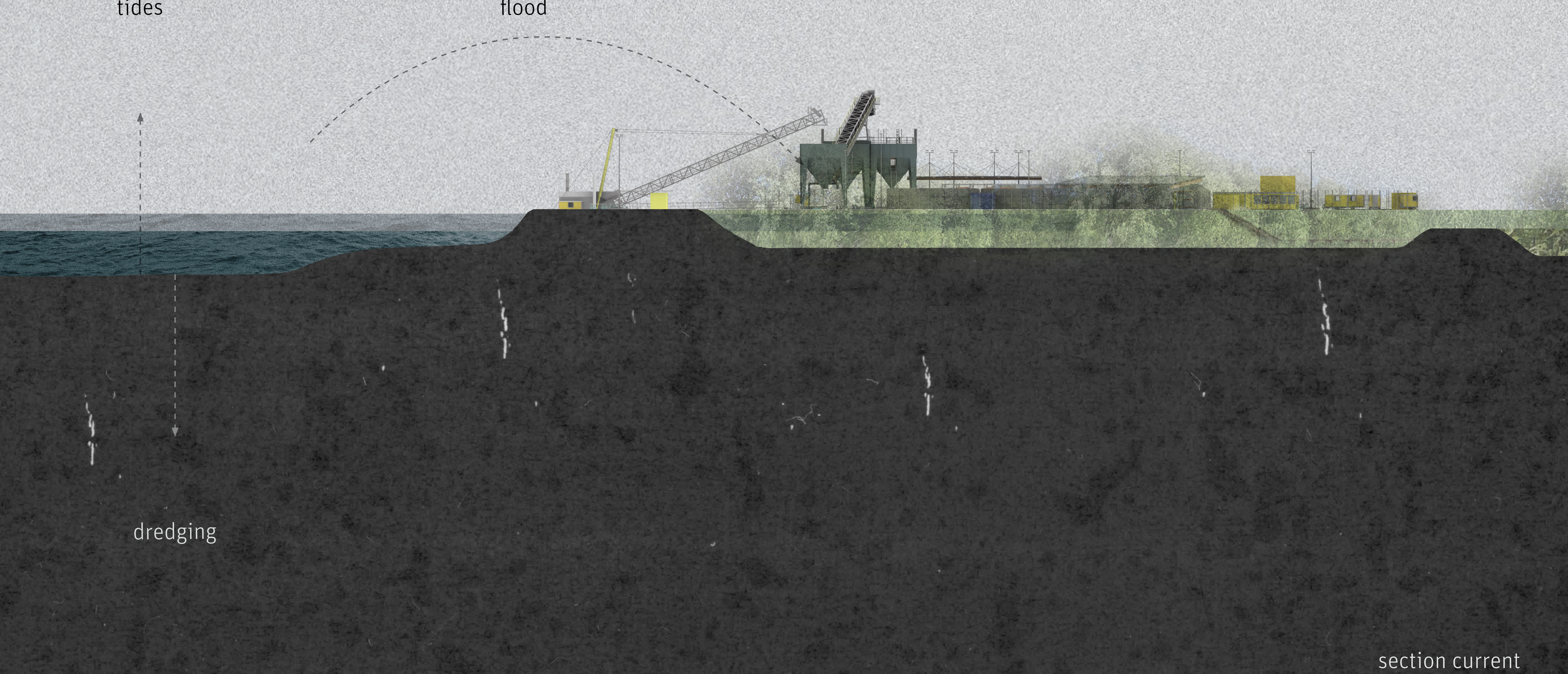
VIGILATE DEO CONFIDENTES
provincie
Zuid-Holland

Ministerie van Justitie en Veiligheid

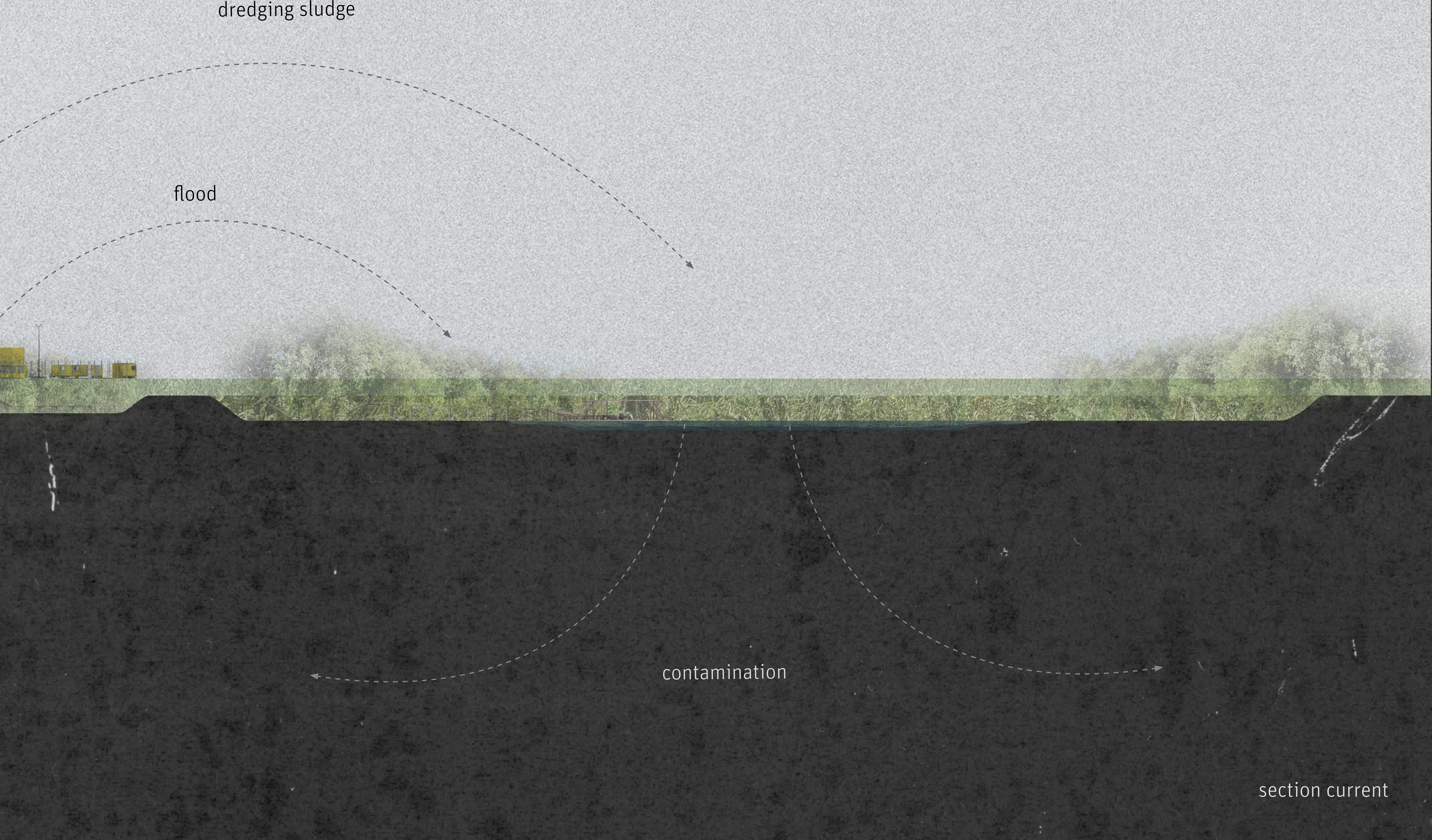
Ministerie van Defensie

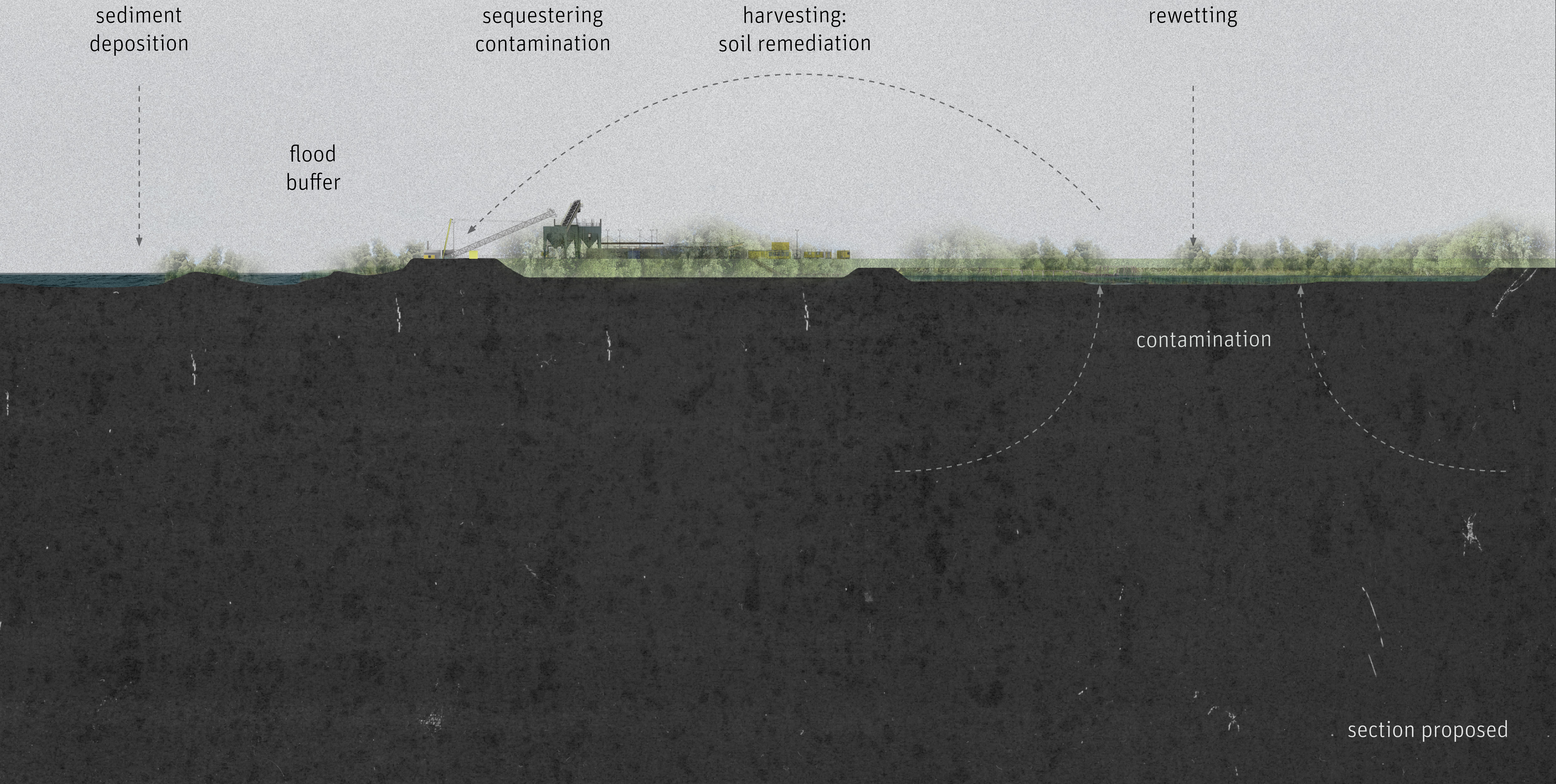

dredging sludge
flood

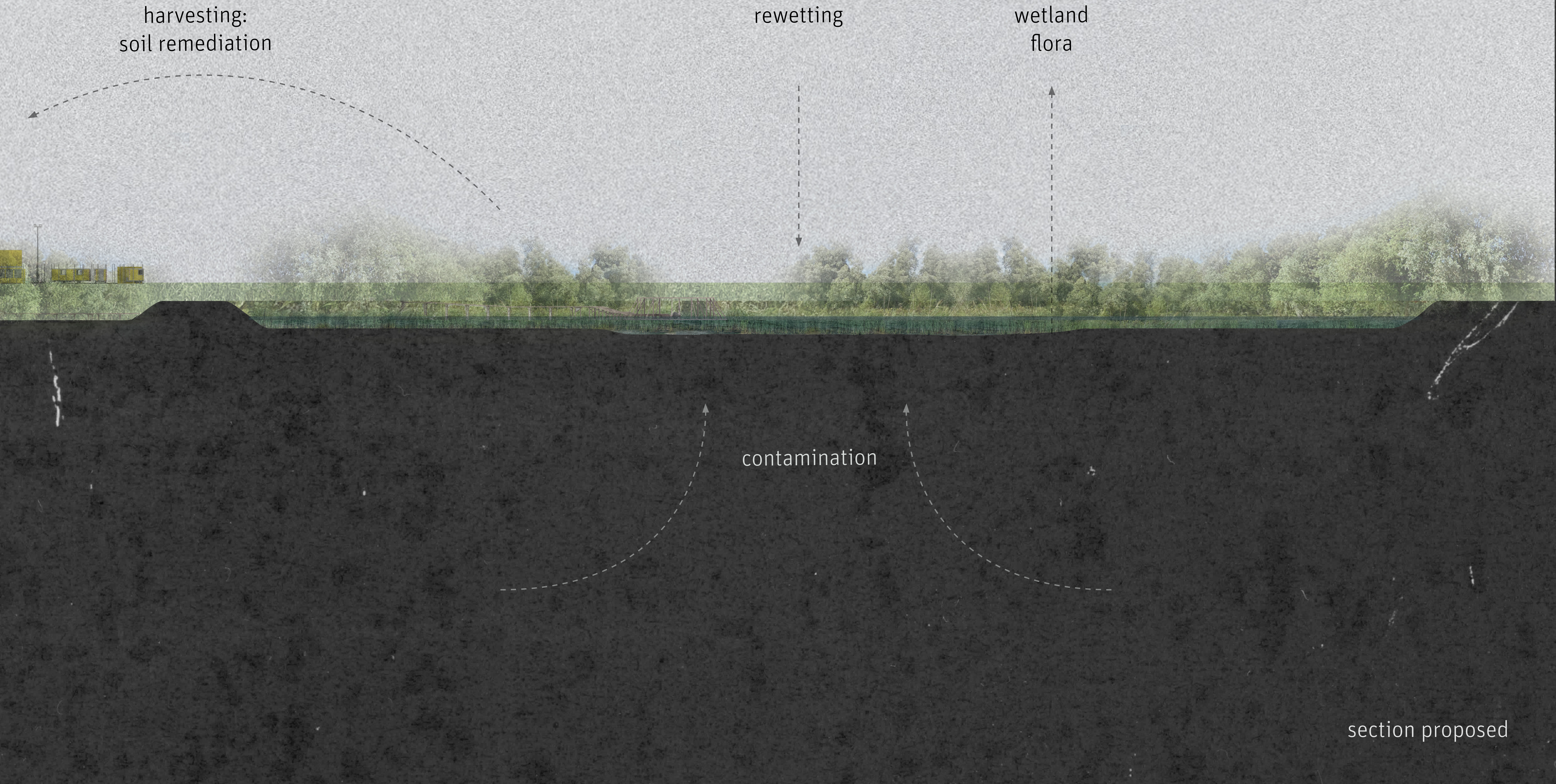
section current


tides
flood
dredging

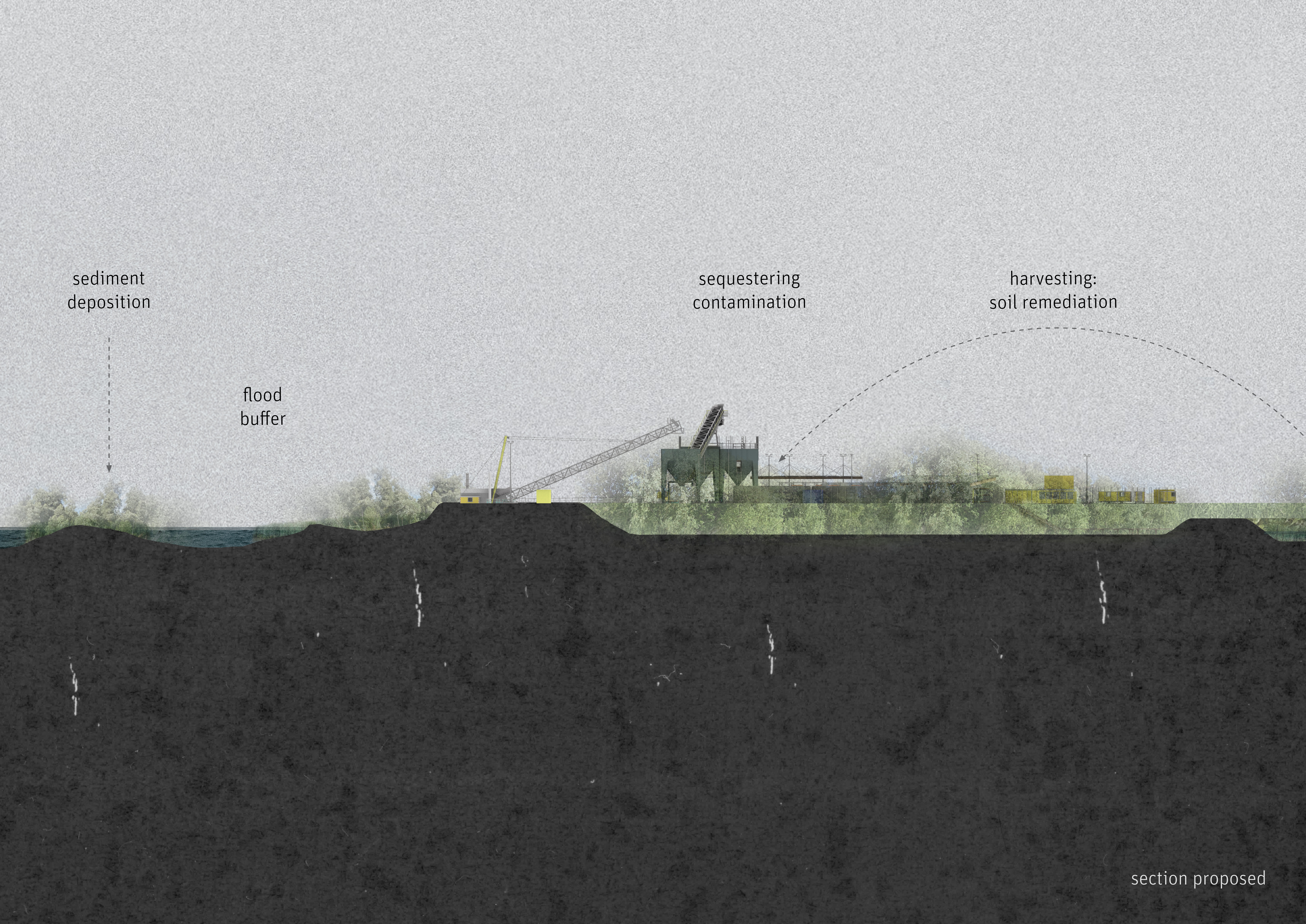
section current


dredging sludge
flood
contamination
section current

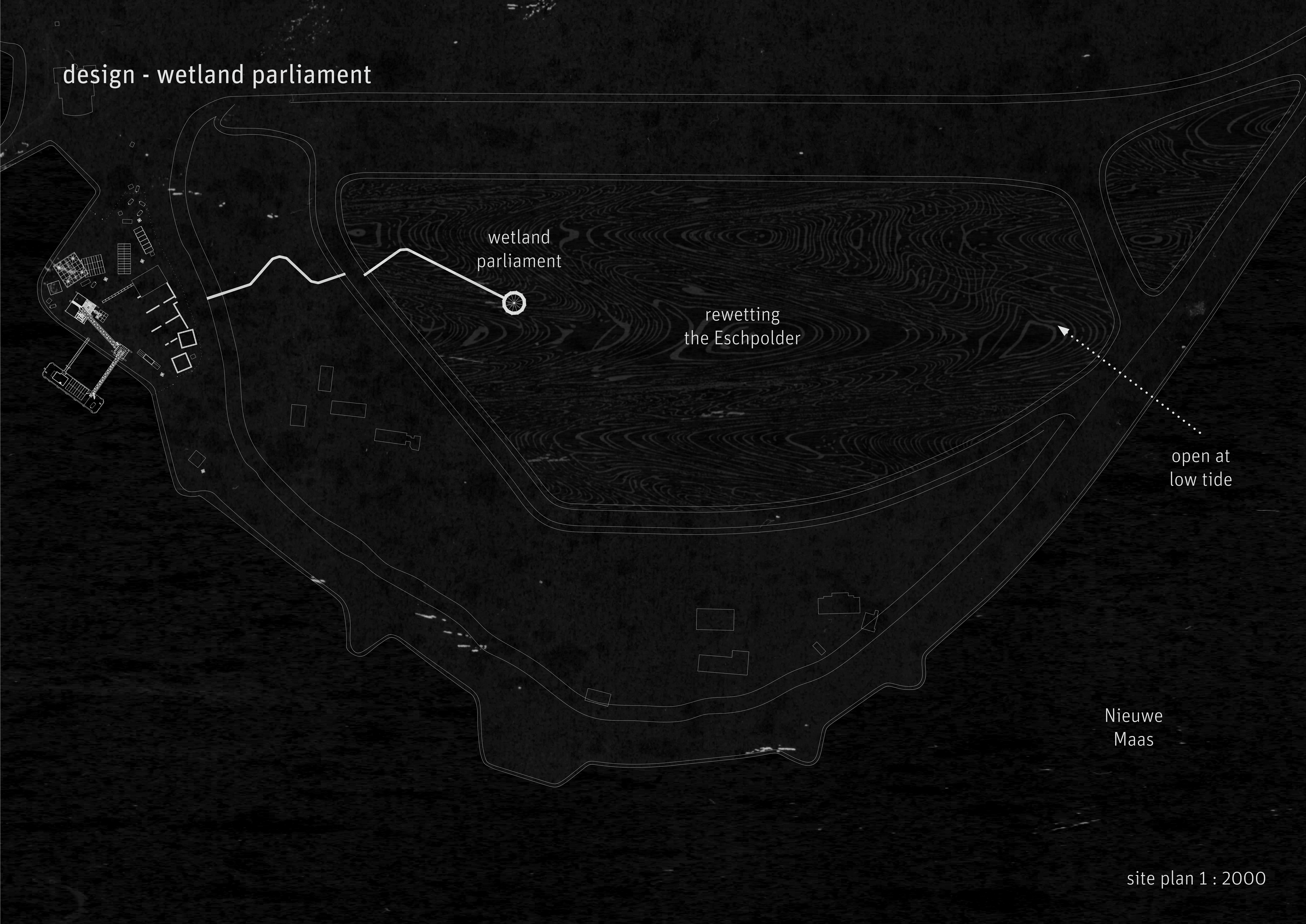

sediment
deposition
flood
buffer
sequestering
contamination
harvesting:
soil remediation
rewetting
contamination
section proposed


harvesting:
soil remediation
rewetting
wetland
flora
contamination

section proposed


sediment deposition
flood buffer
sequestering contamination
harvesting: soil remediation
section proposed

design - wetland parliament


wetland
parliament
rewetting
the Eschpolder
open at
low tide
Nieuwe
Maas

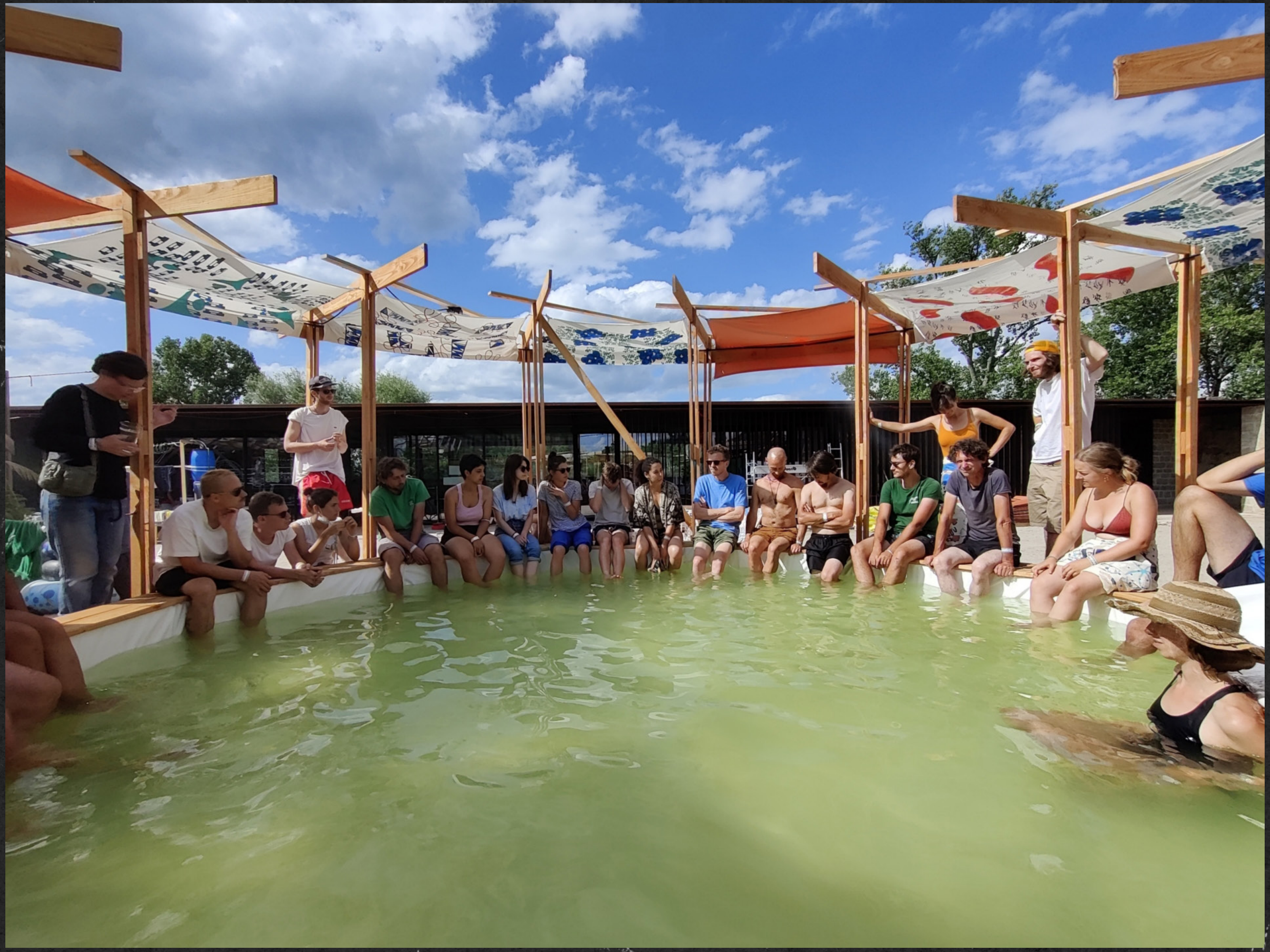
site plan 1 : 2000

design - wetland parliament

design - wetland parliament

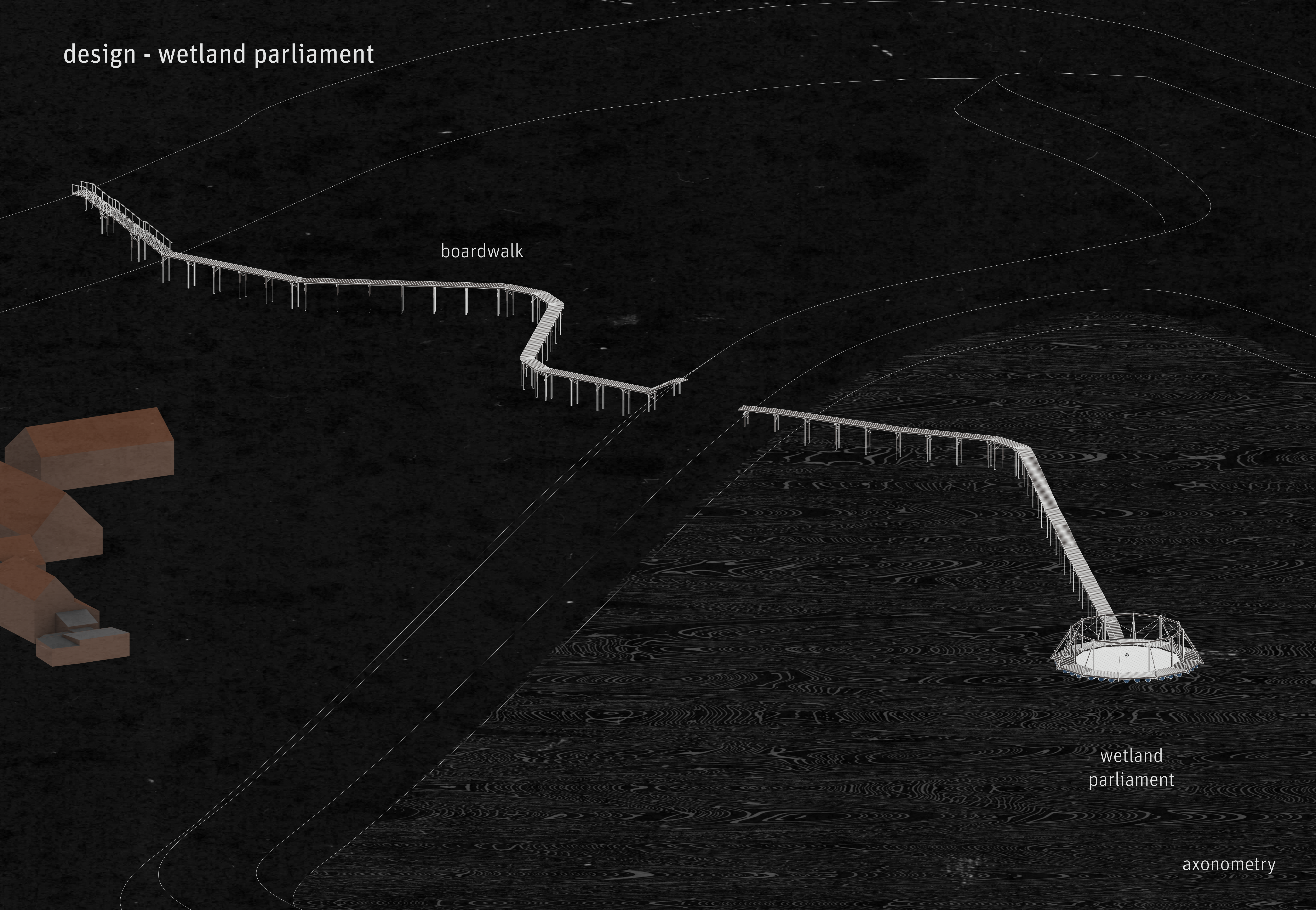
Studio Stoks. (n.d.). *Sophiapolder* [Photograph]. Zuid-Hollands Landschap. https://www.zuidhollandslandschap.nl/gebied/natuureiland-sophiapolder

design - wetland parliament

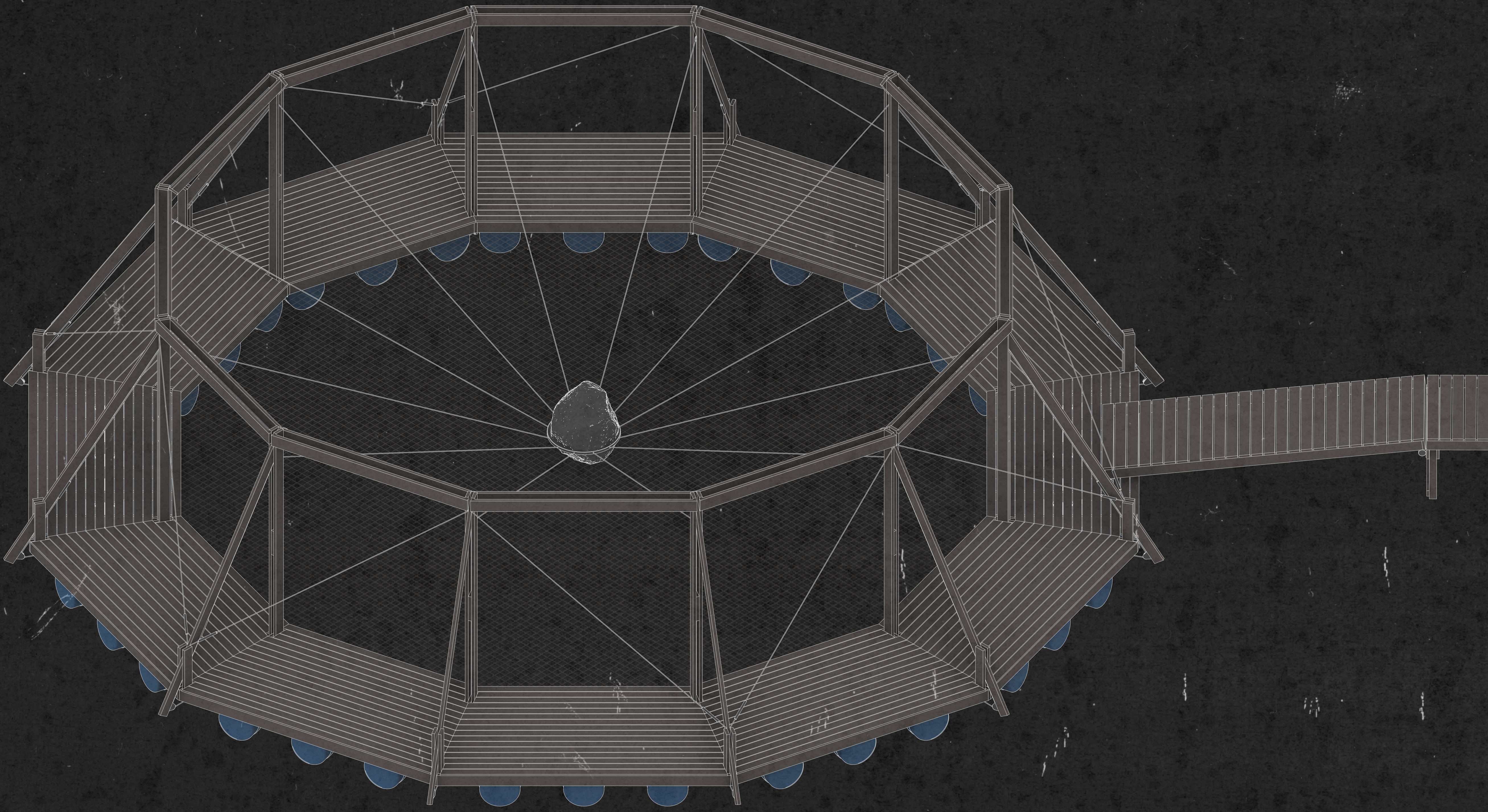


Prinsen, J. (2021). *Le cours de l'eau, la cour et l'eau* [Photograph]. Construct Lab. https://constructlab.net/projects/le-cours-de-leau-la-cour-et-leau/

design - wetland parliament

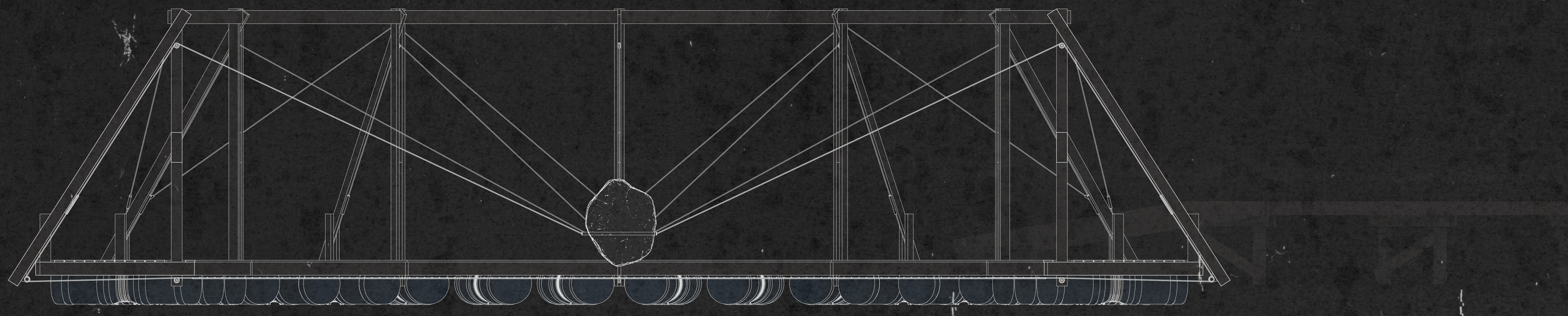

boardwalk
wetland parliament
axonometry

design - wetland parliament



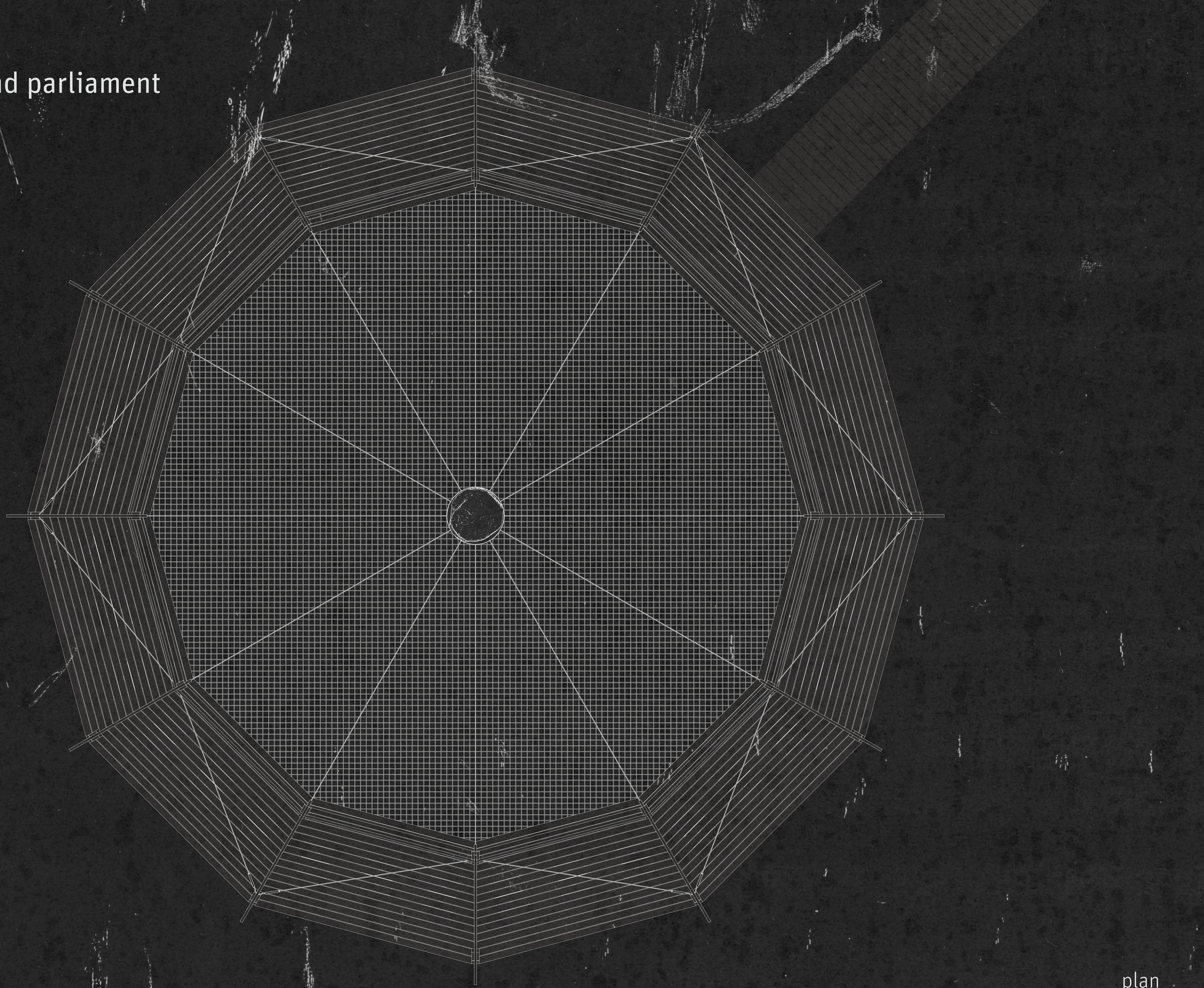
axonometry

design - wetland parliament



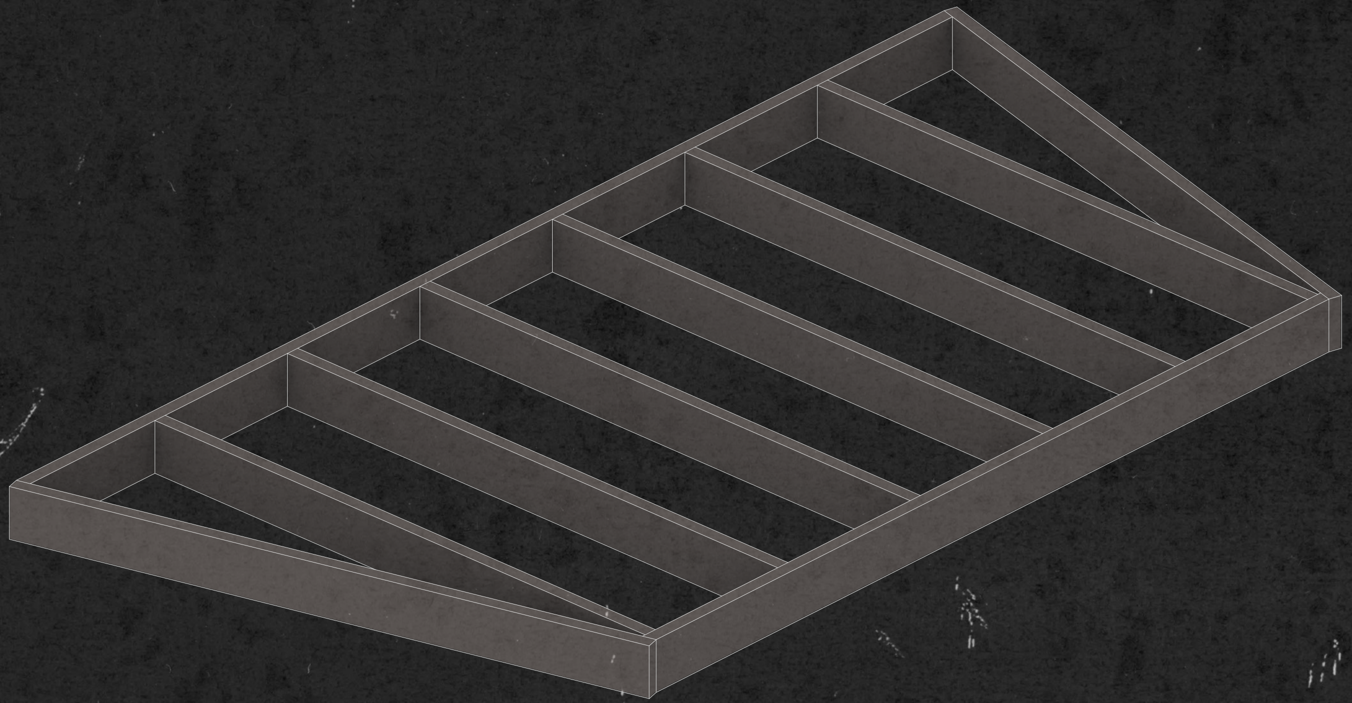
section

design - wetland parliament



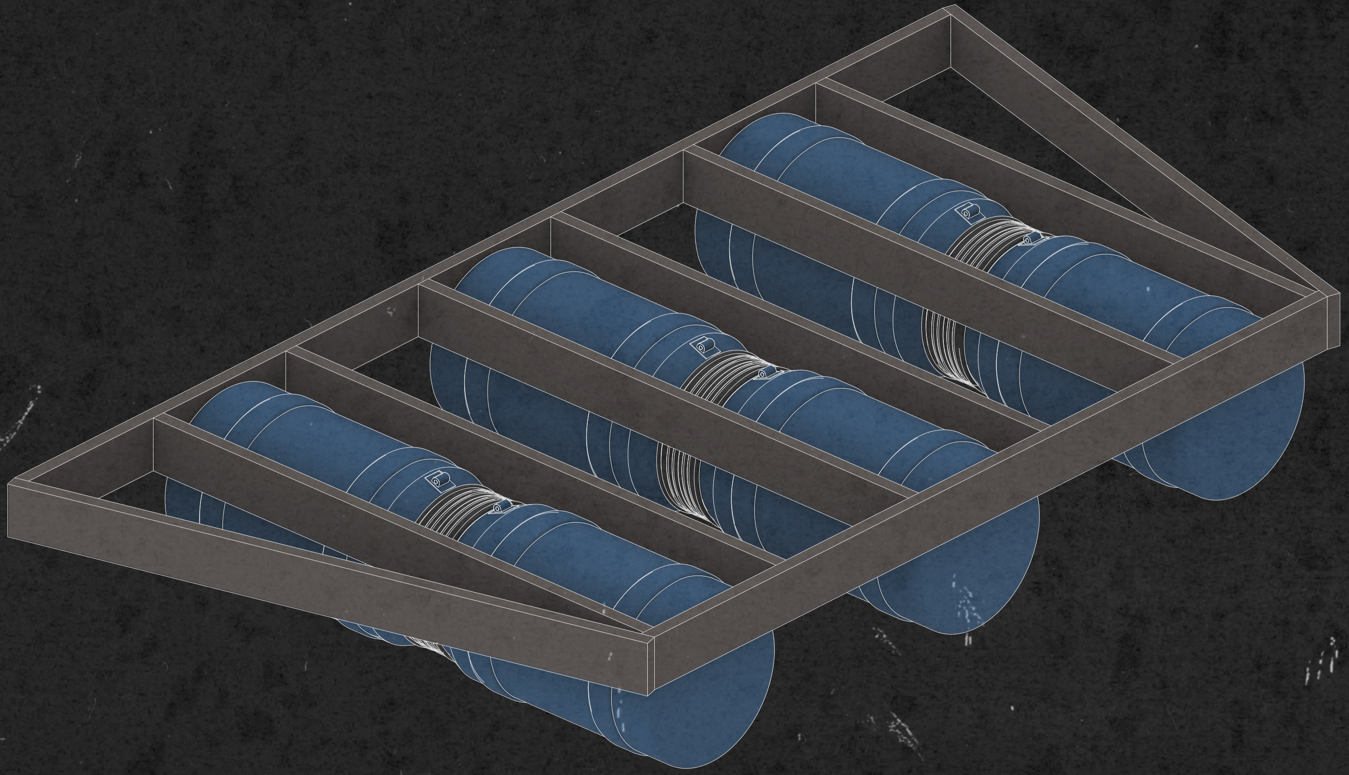
plan

design - wetland parliament



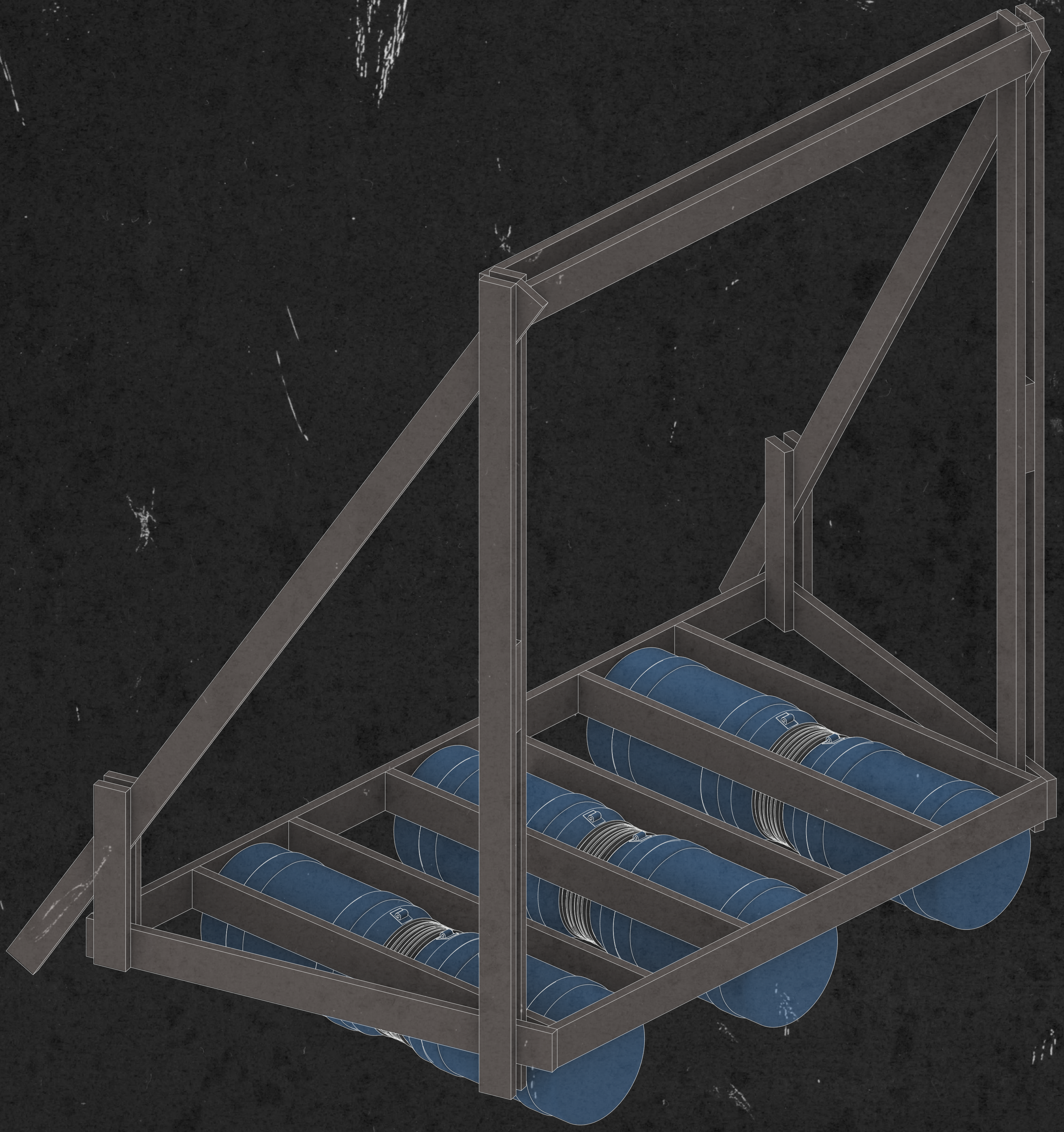
axonometry assemblage

design - wetland parliament



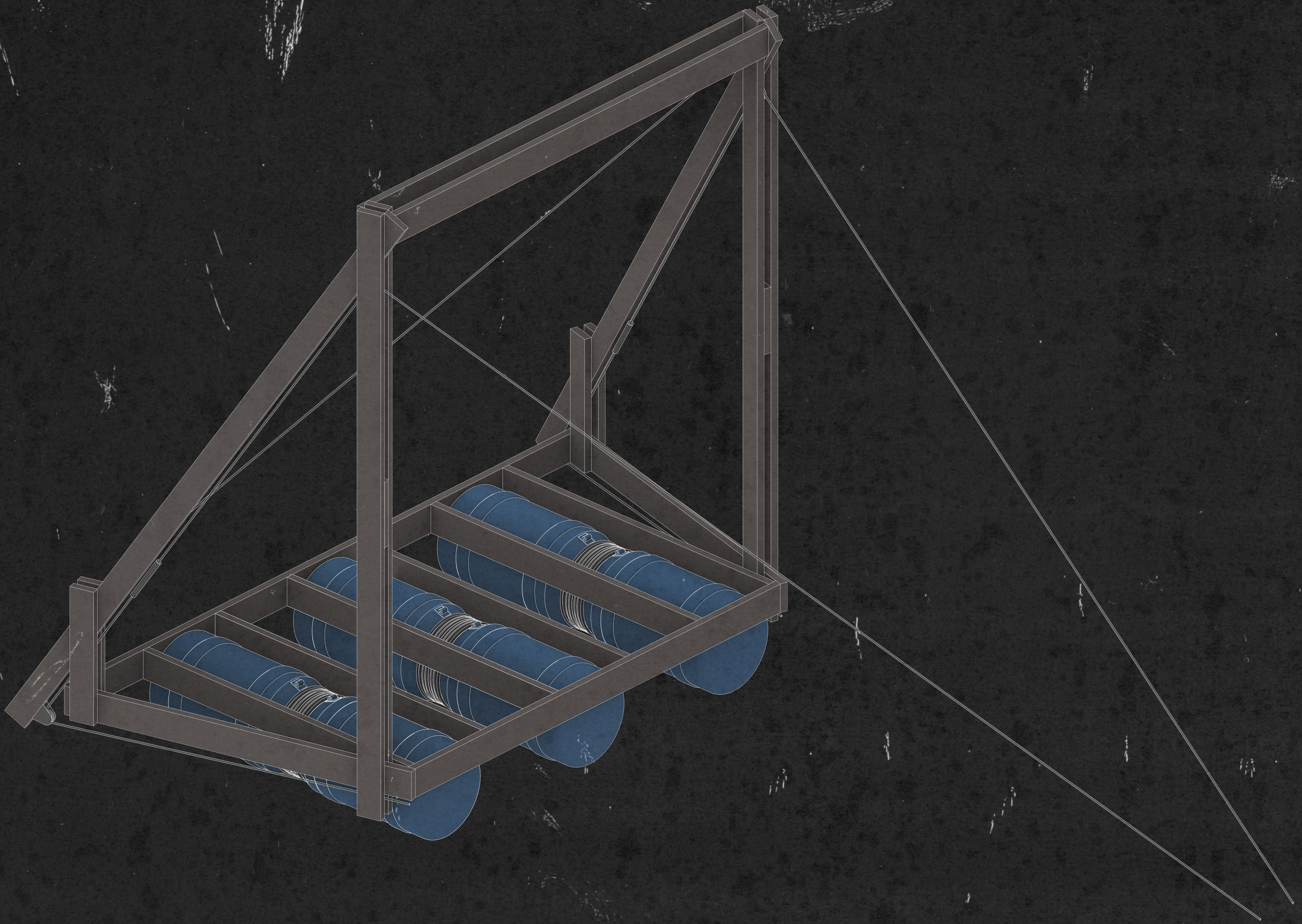
axonometry assemblage

design - wetland parliament



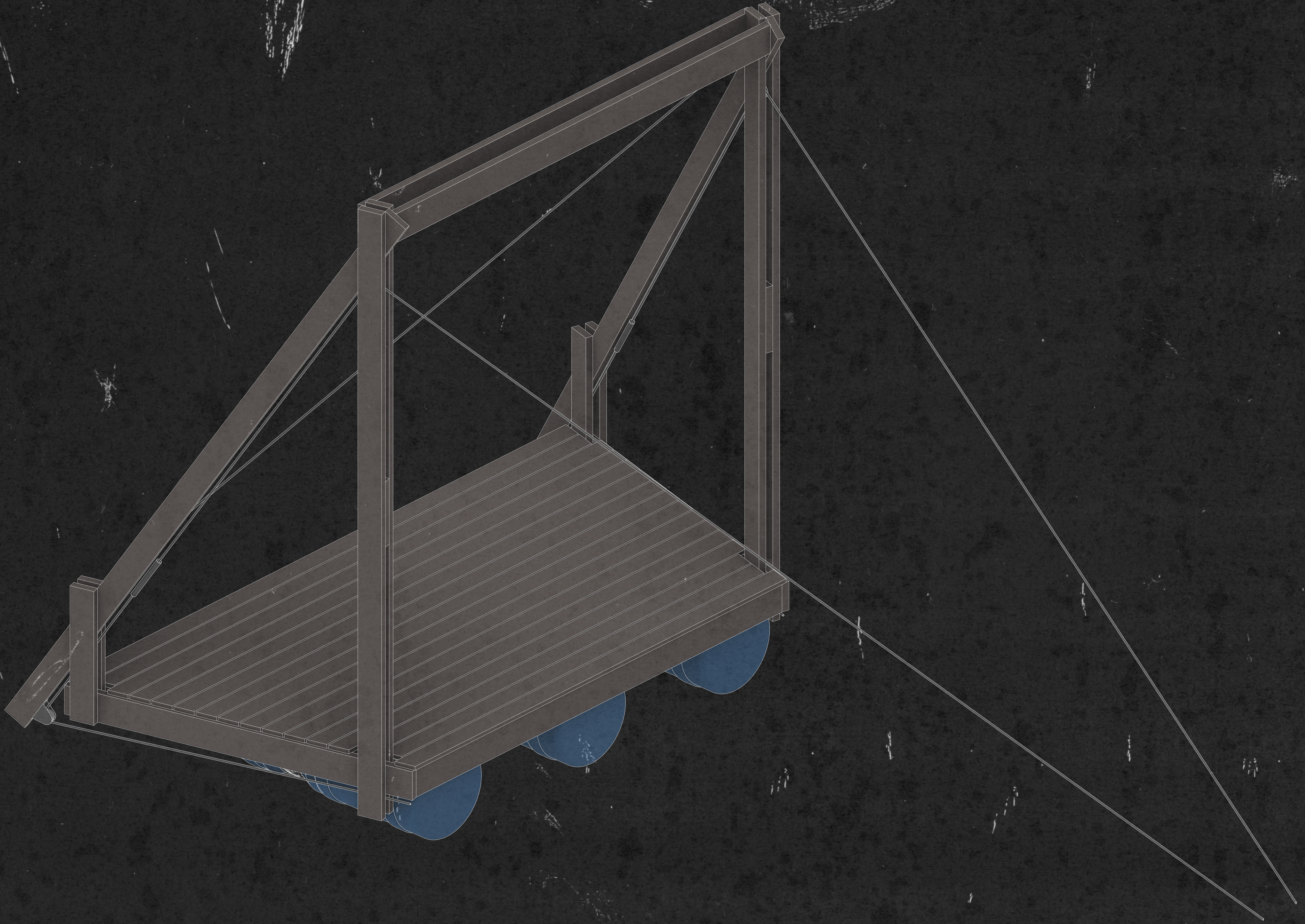
axonometry assemblage

design - wetland parliament

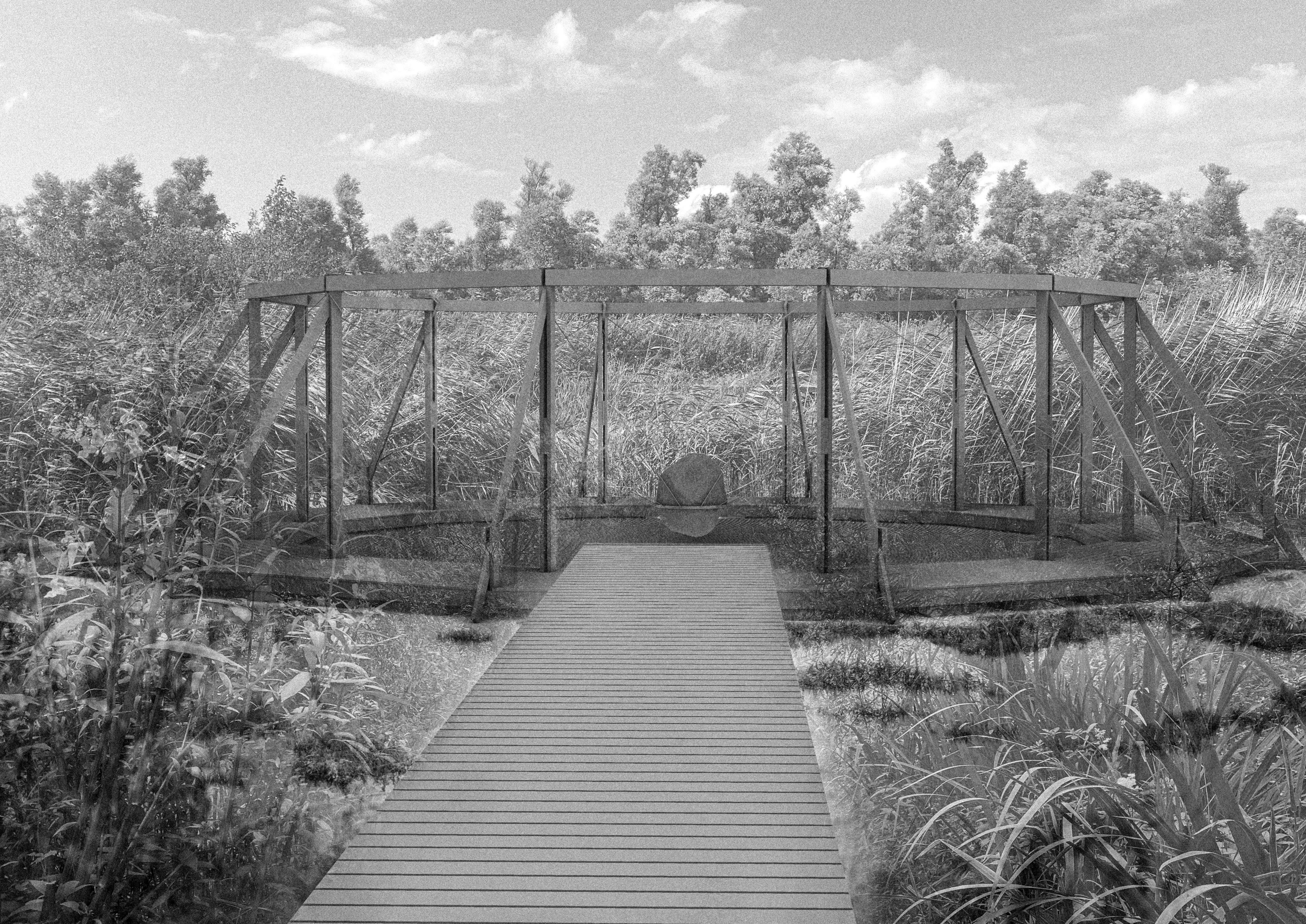


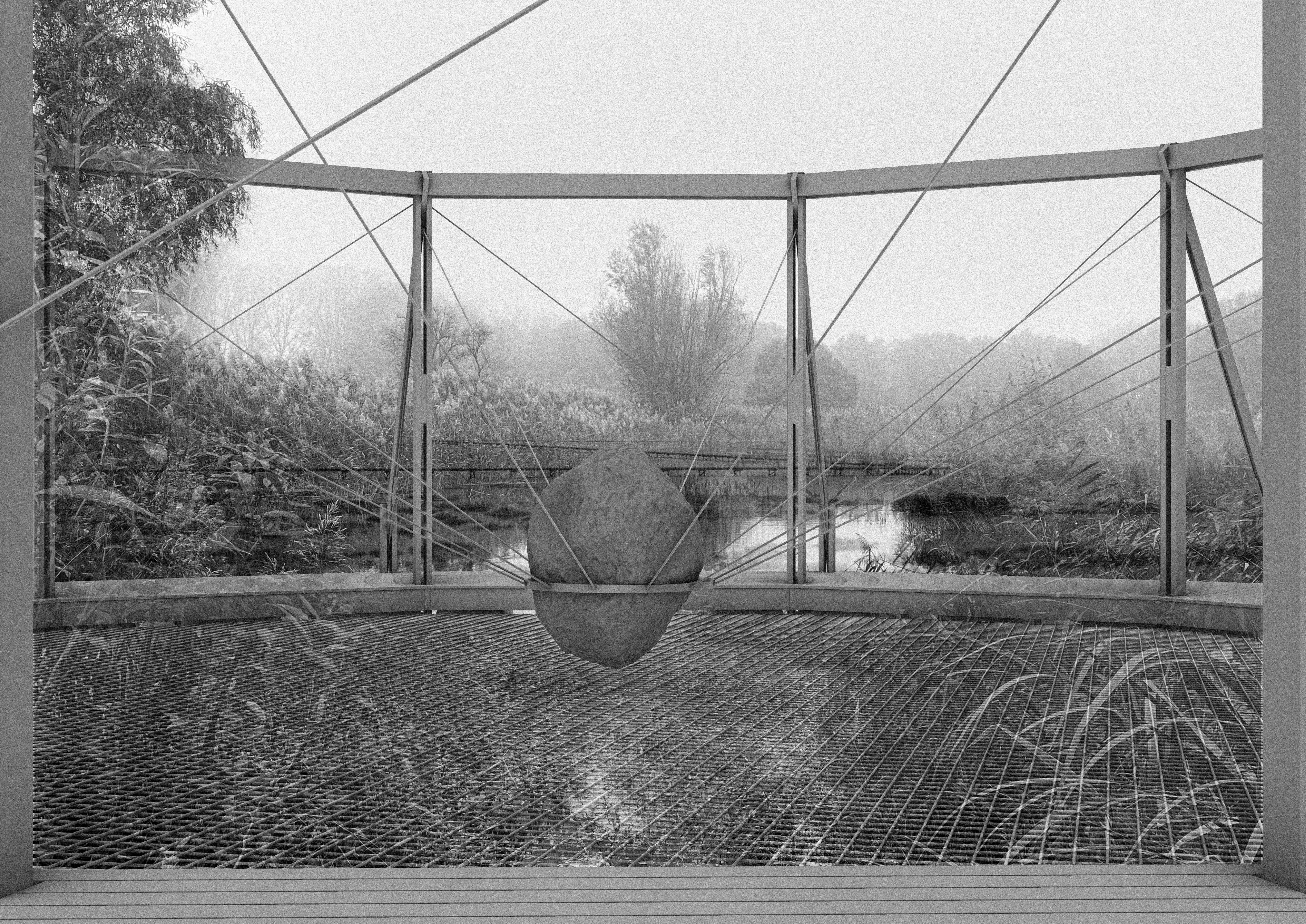
axonometry assemblage

design - wetland parliament

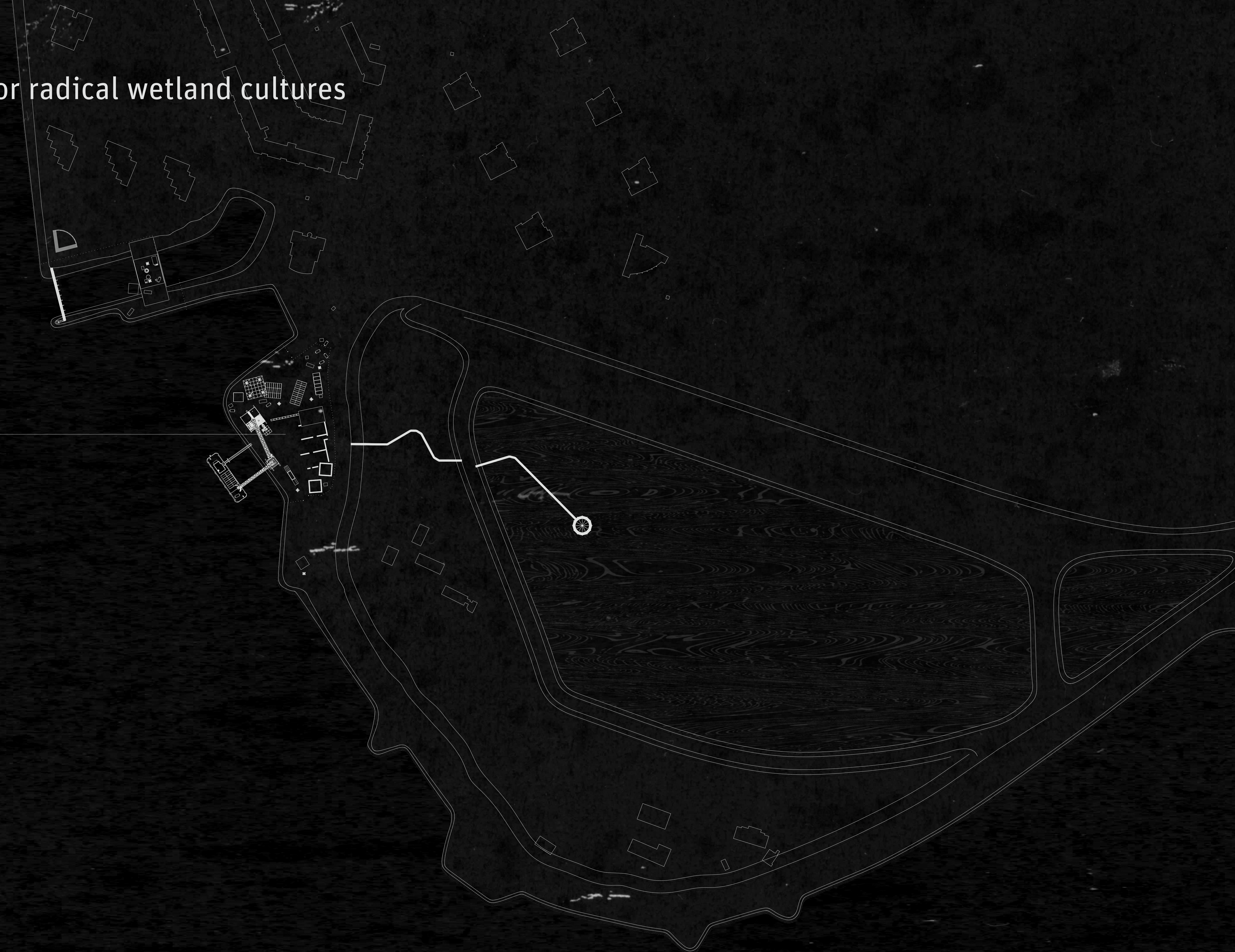


axonometry assemblage



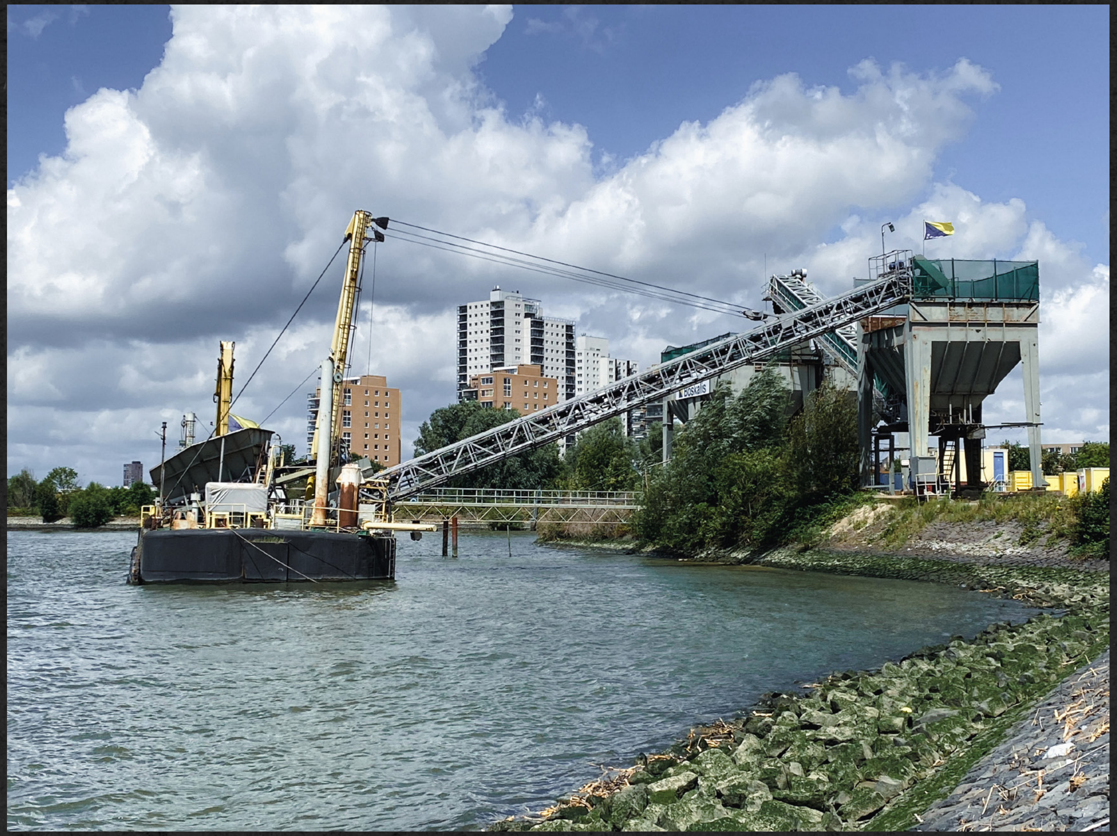


design - institute for radical wetland cultures


institute for radical
wetland cultures

site plan 1 : 3000

design - institute for radical wetland cultures



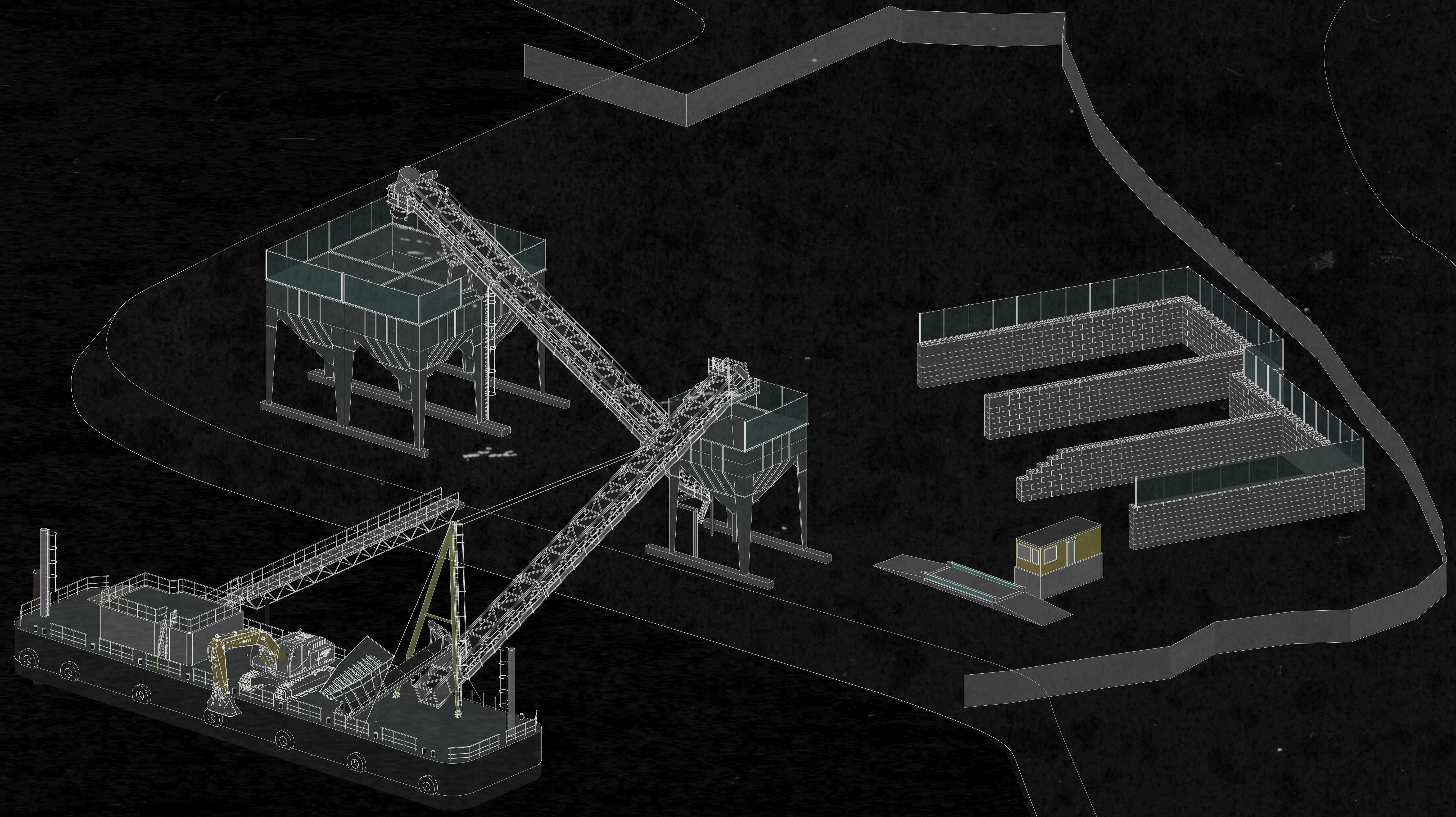
current site

design - institute for radical wetland cultures

Boskalis
Boskalis

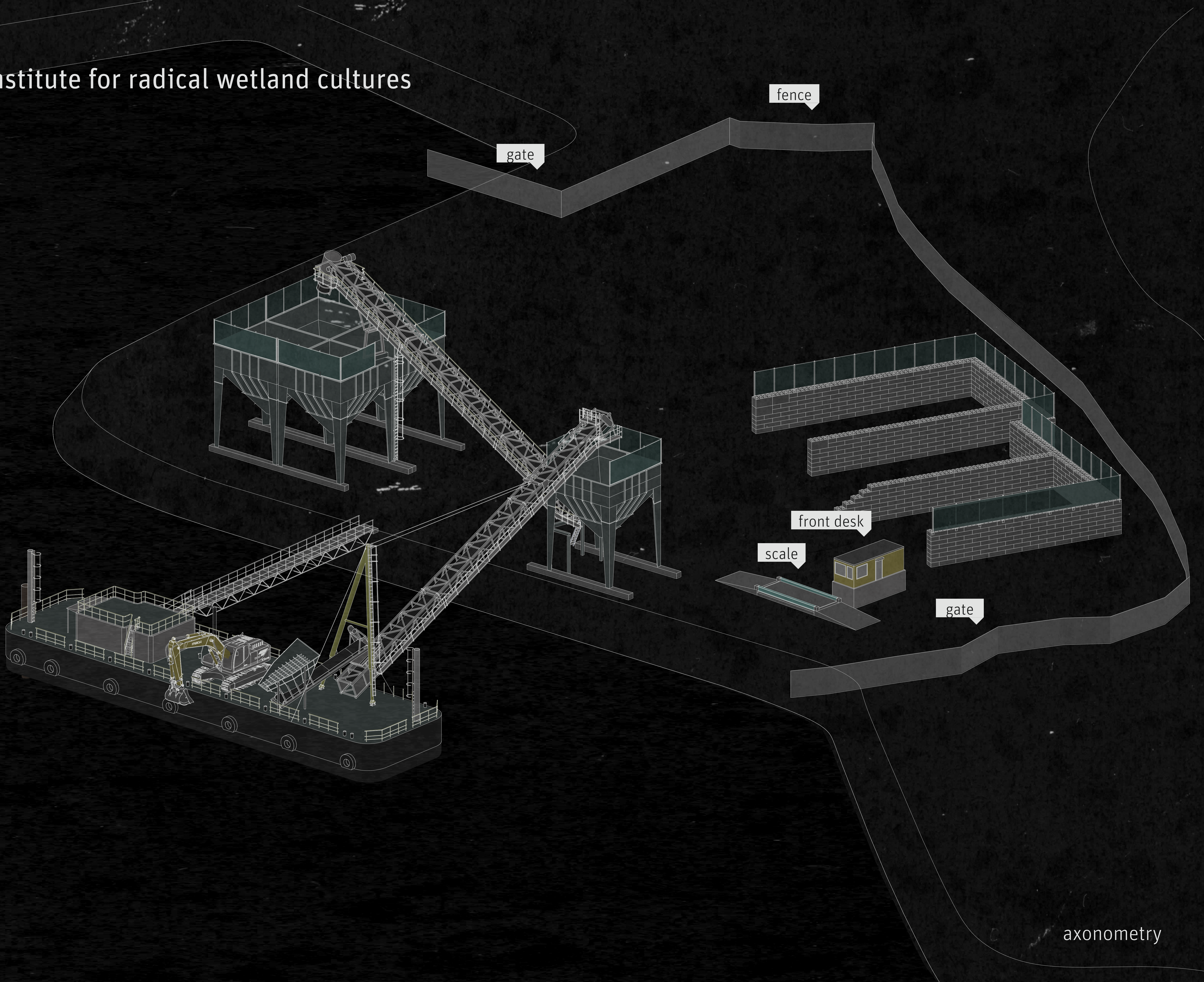
current site

design - institute for radical wetland cultures



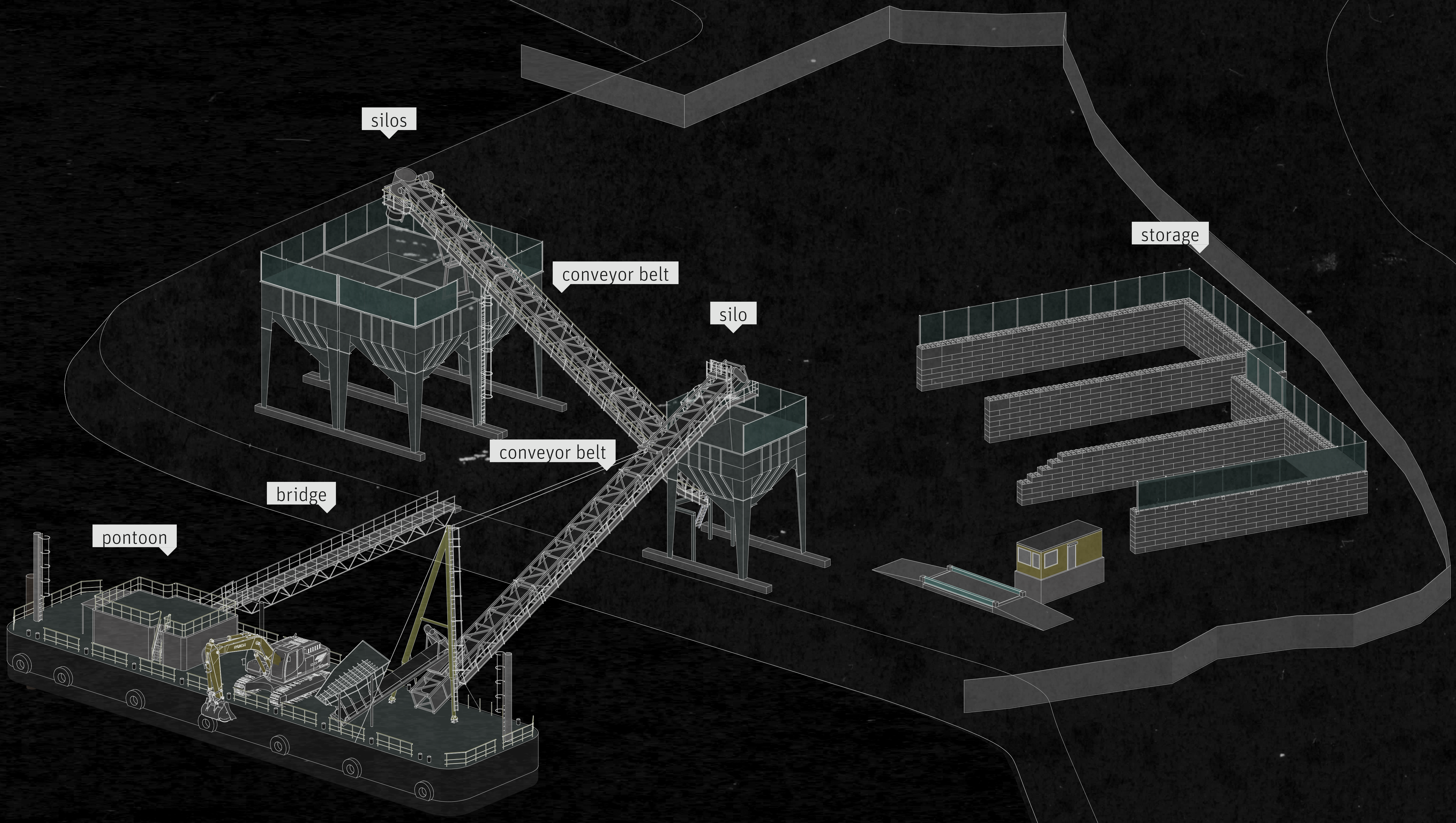
axonometry

design - institute for radical wetland cultures

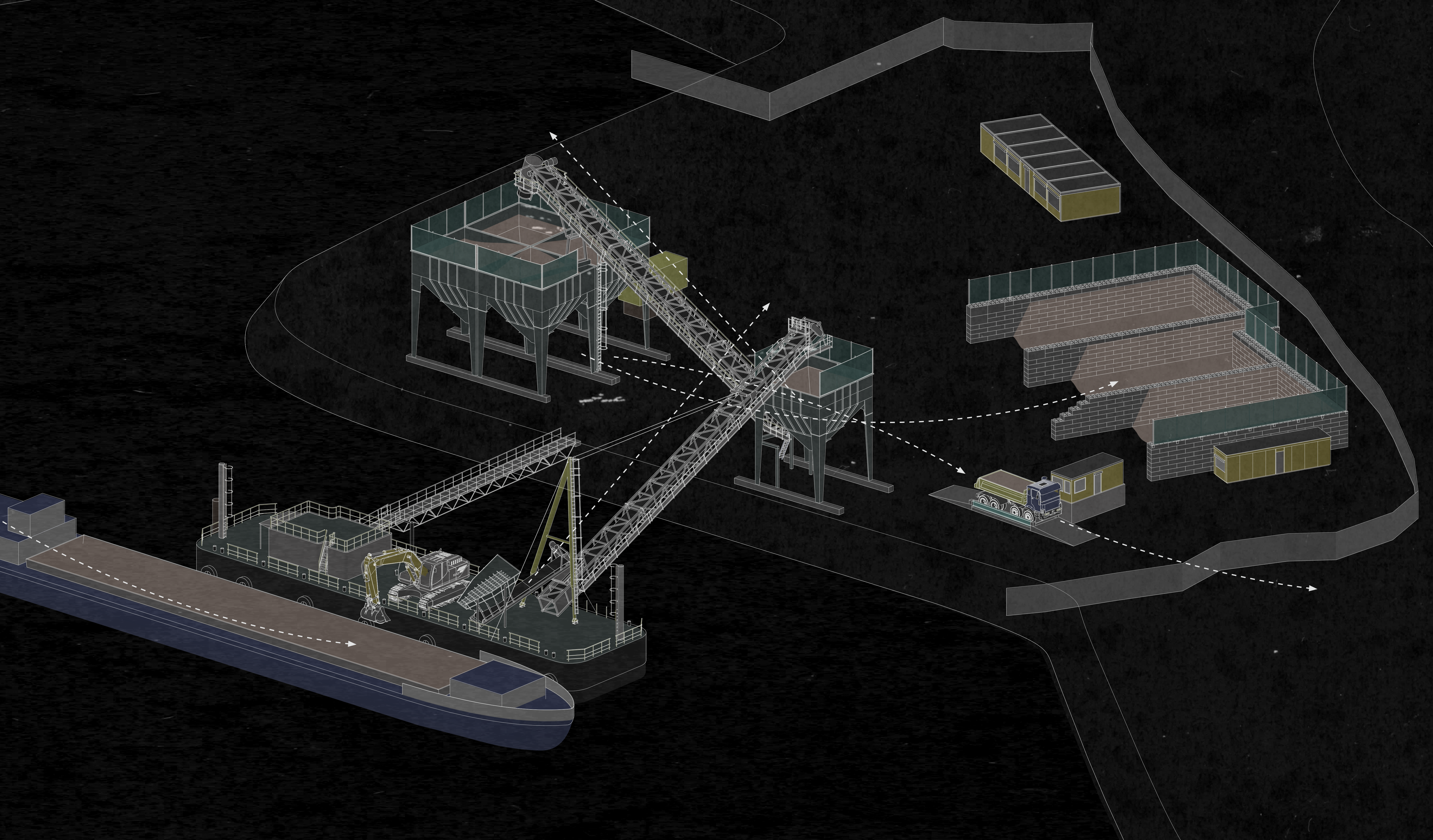

fence
gate
front desk
scale
gate

axonometry

design - institute for radical wetland cultures

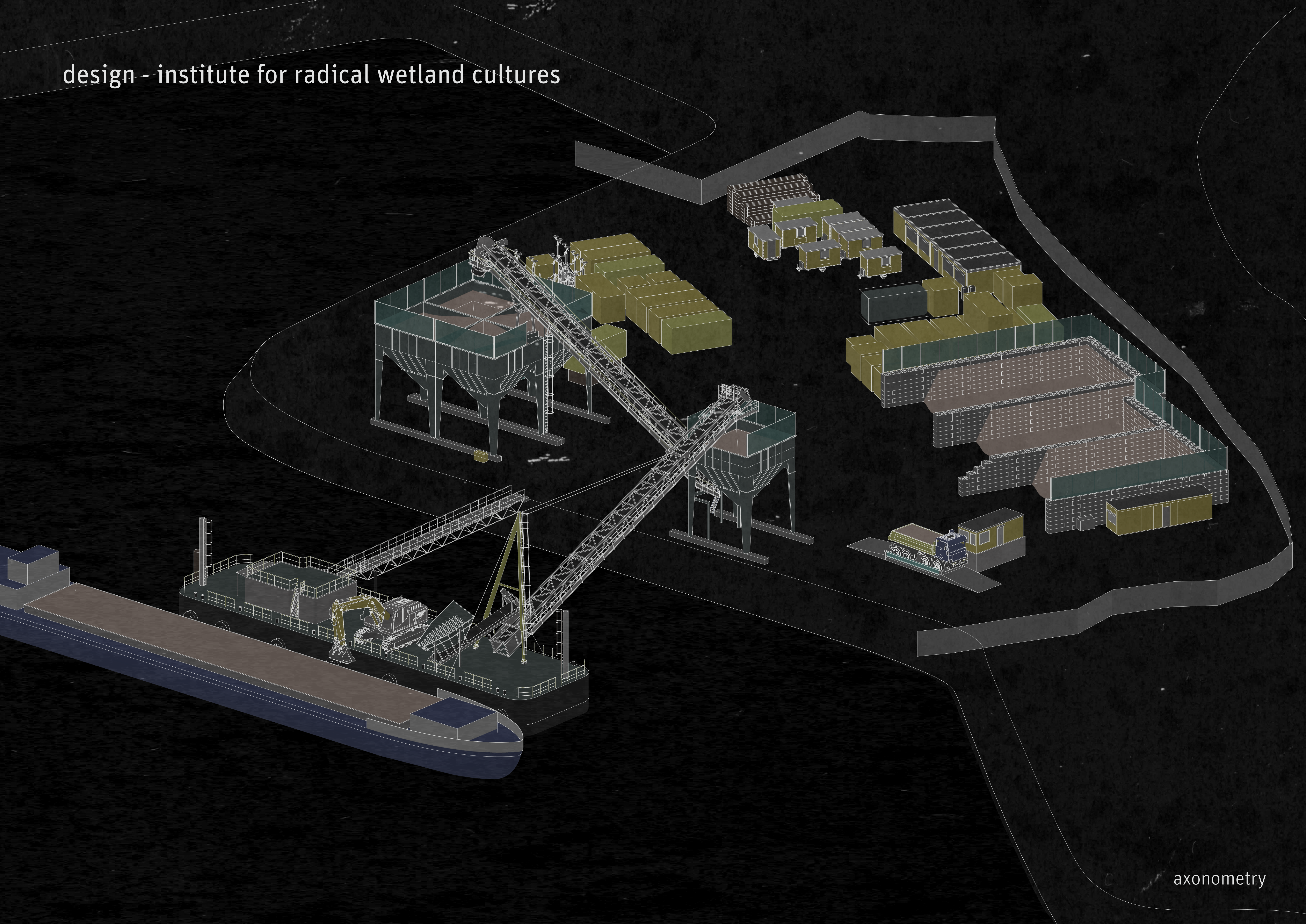

silos
conveyor belt
silo
storage
conveyor belt
bridge
pontoon

axonometry



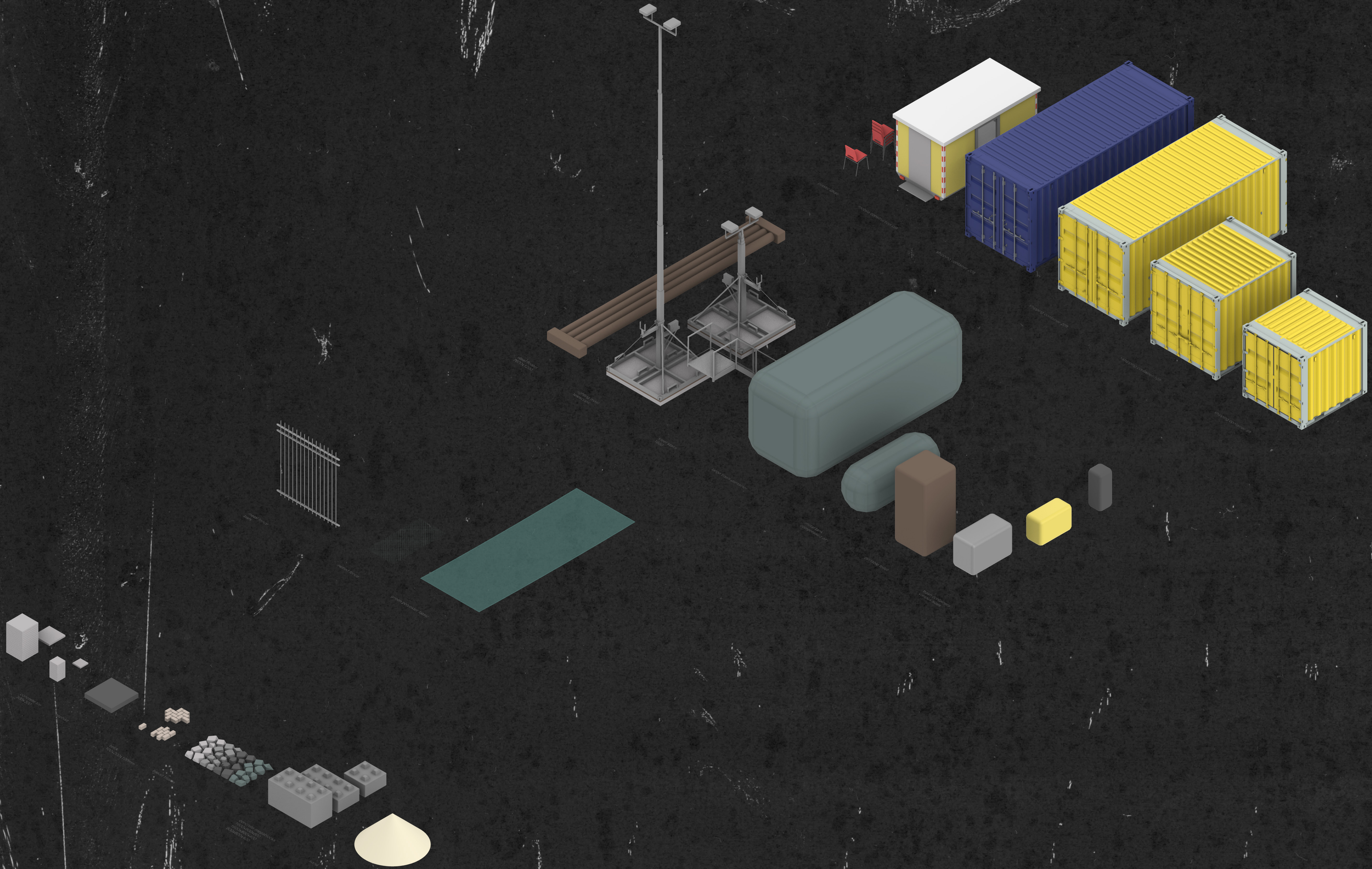
axonometry

design - institute for radical wetland cultures



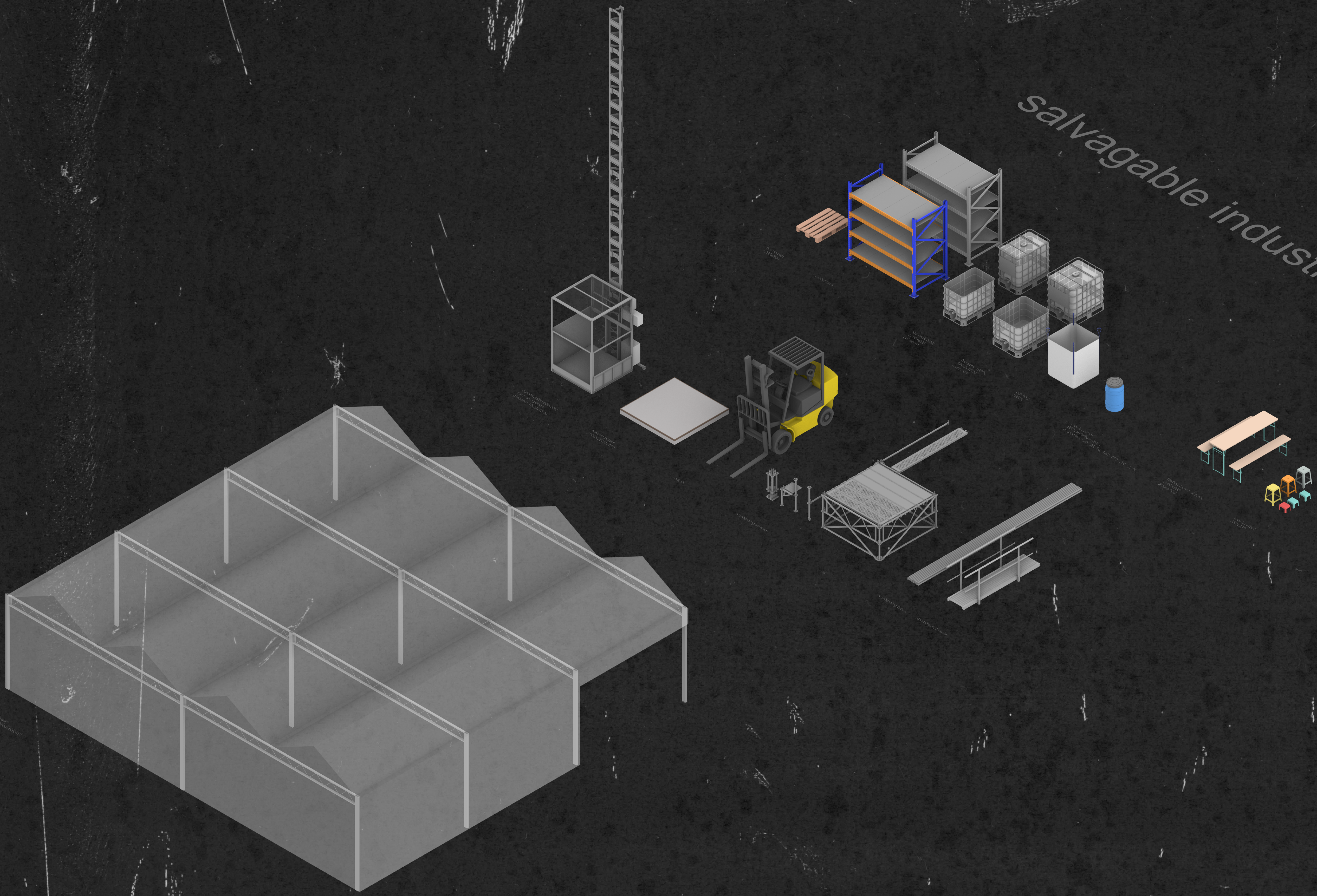
axonometry

design - institute for radical wetland cultures



materials site

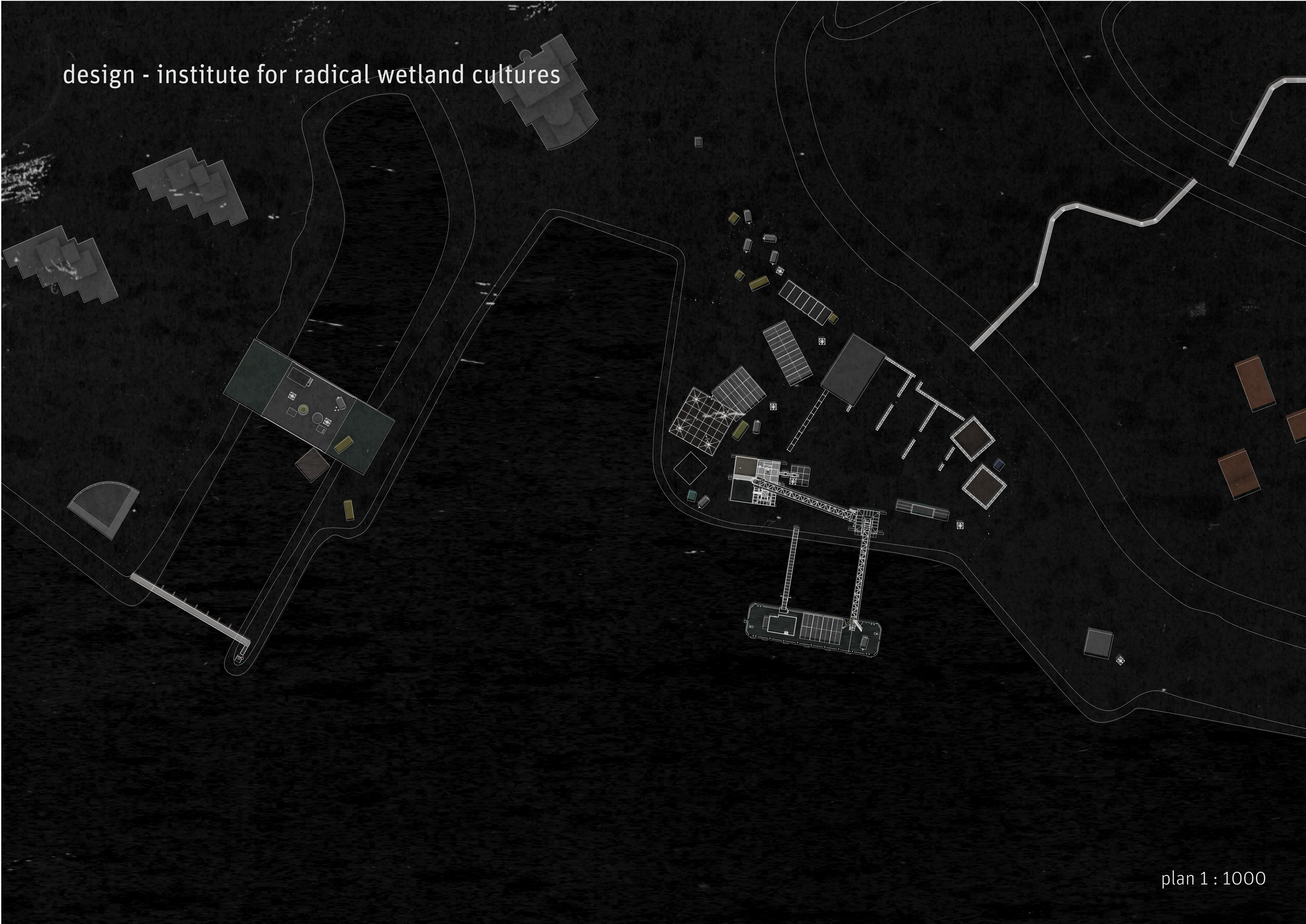
design - institute for radical wetland cultures


greenhouse
x(3200x4000mm)
construction elevator
rack and pinion
platform 1500x1500
stelcon plates
2000x2000x160
fork lift
scaffolding system
europallet
1200x800
pallet rack
ibc tank 800L
1200x800
cut open
ibc tank 1000L
1200x1000
cut open
big bag
1000L
plastic drum
500x500x800 (60L)
available in 25, 30, 60, 120, 160, 200, 220L
folding bench & table
2000x550
2000x300
plastic stool
330x330
scaffolding tubes
aluminium brigde

salvagable industrial products

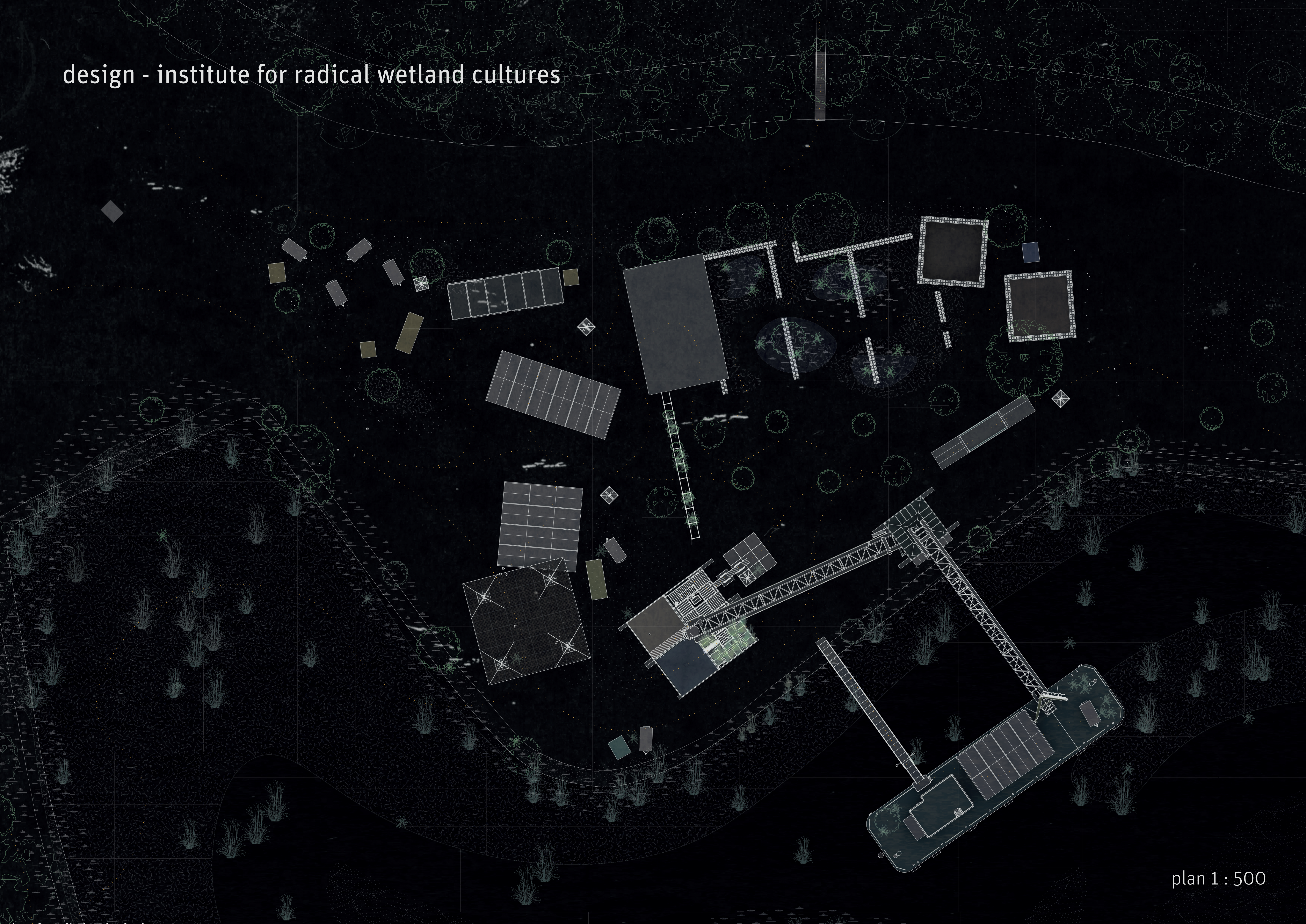
salvagable industrial products

design - institute for radical wetland cultures



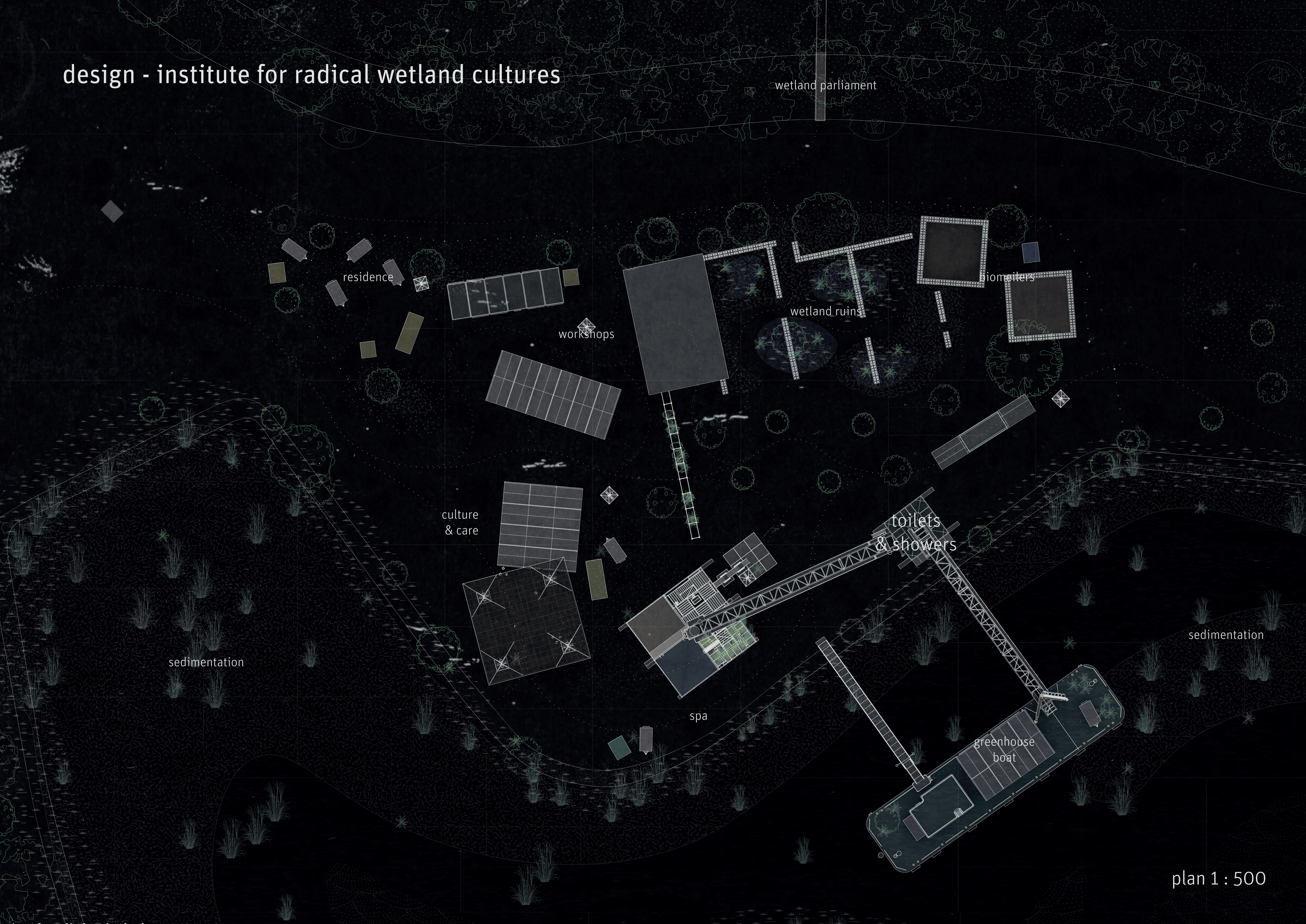
plan 1 : 1000

design - institute for radical wetland cultures



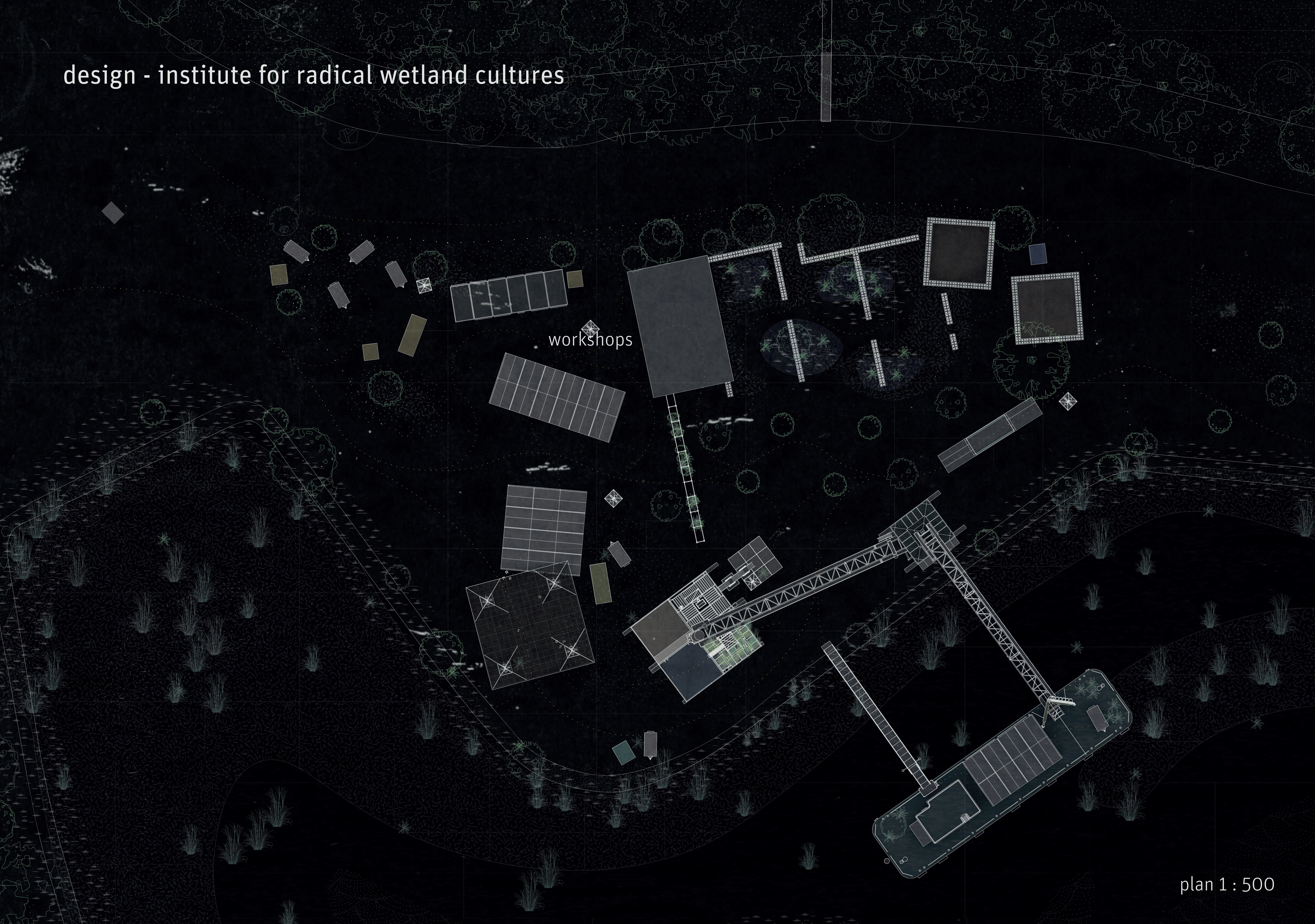
plan 1 : 500

design - institute for radical wetland cultures


wetland parliament
residence
workshops
wetland ruins
biomeilers
culture
& care
toilets
& showers
sedimentation
spa
greenhouse
boat
sedimentation

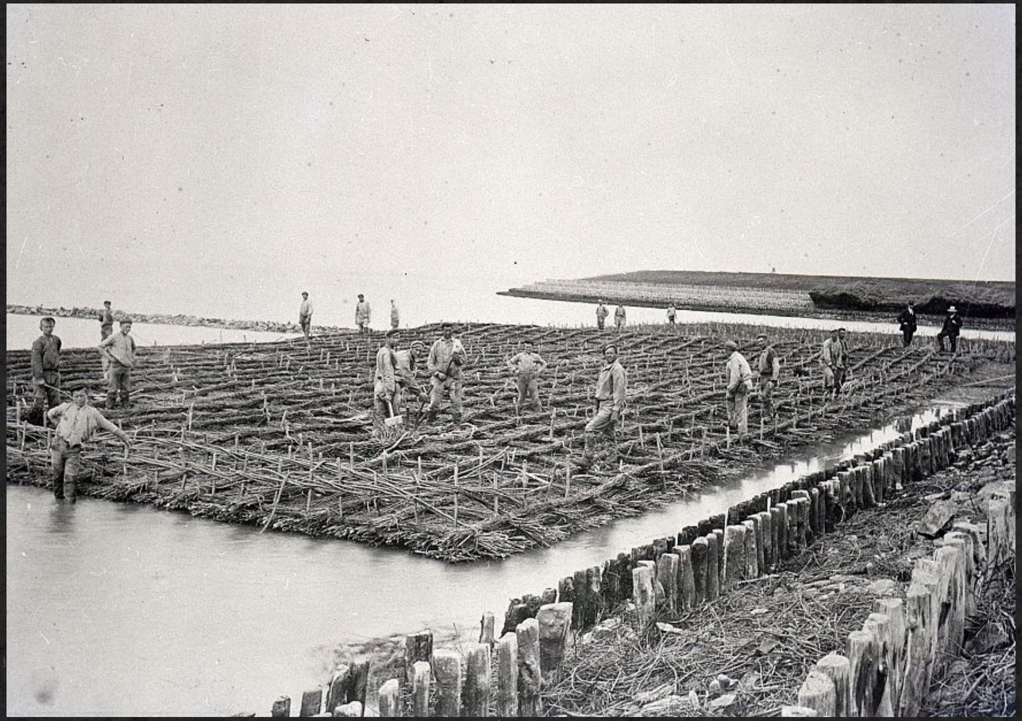
plan 1 : 500

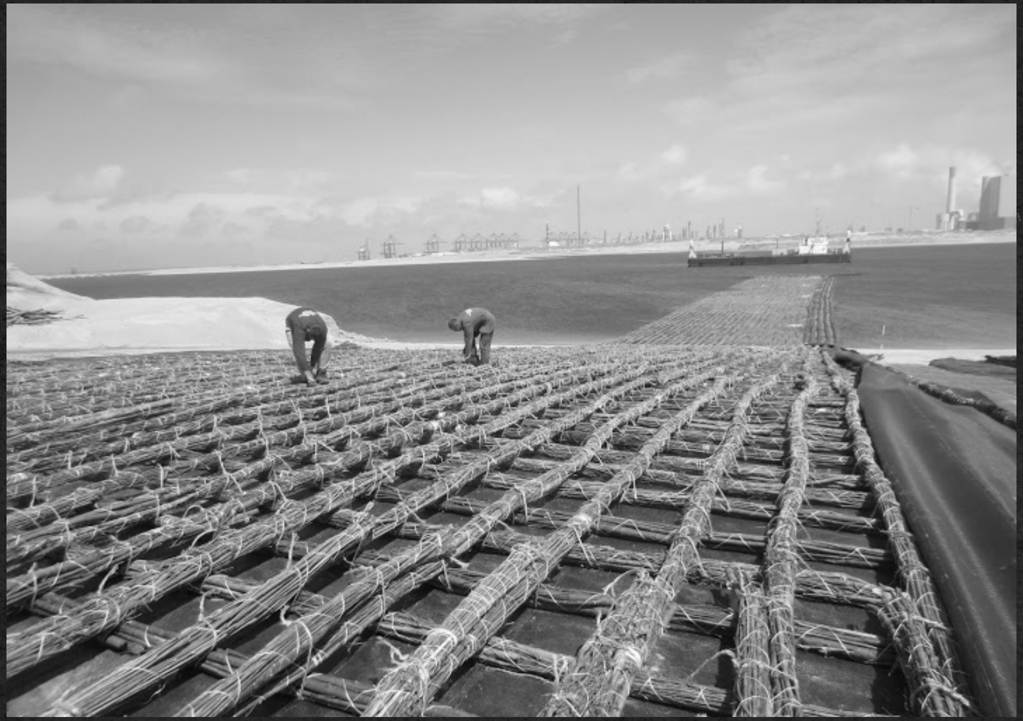
design - institute for radical wetland cultures



plan 1 : 500

design - institute for radical wetland cultures

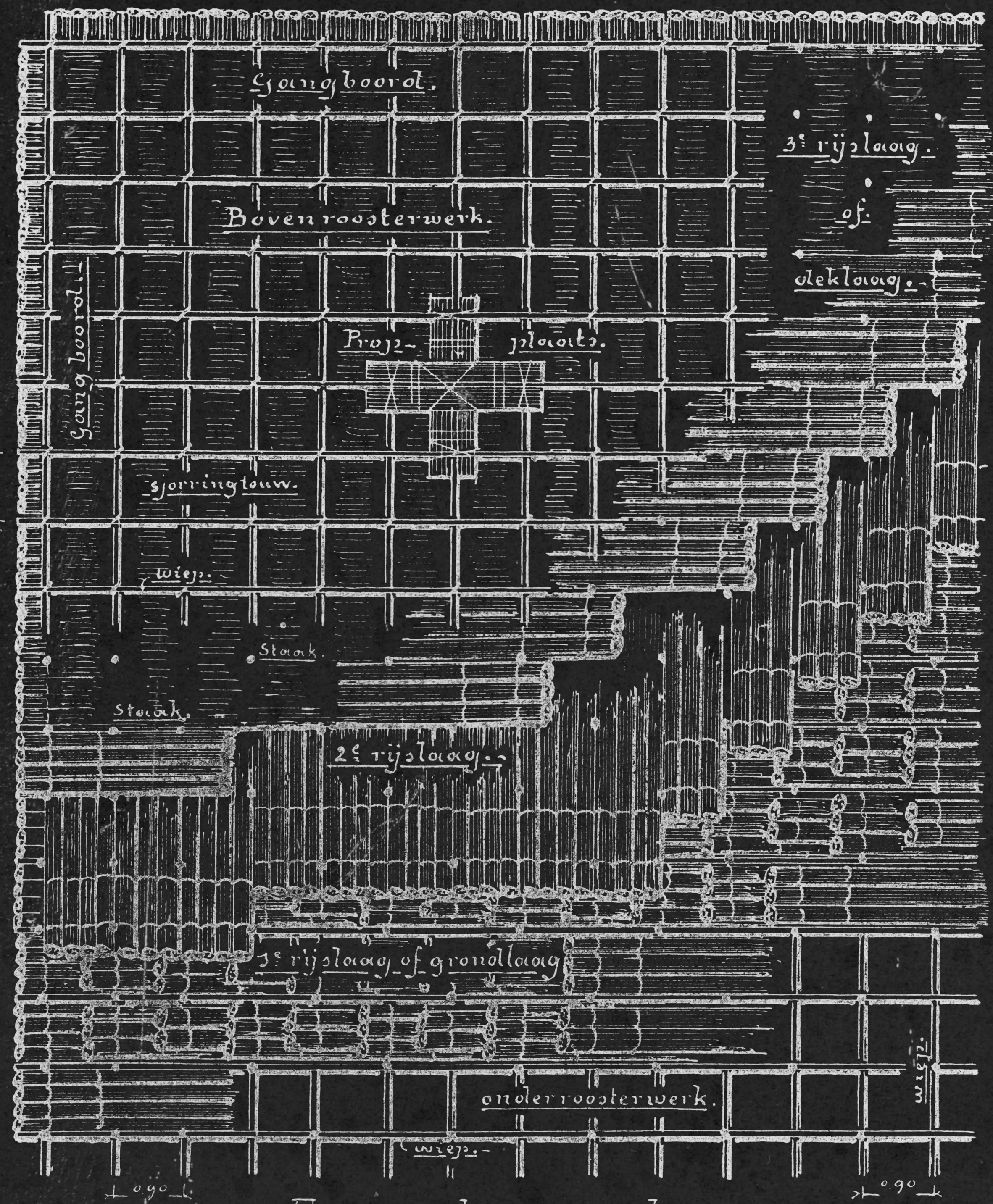




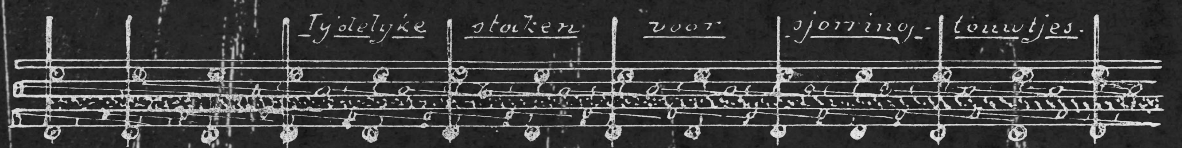
design - fascine canopy

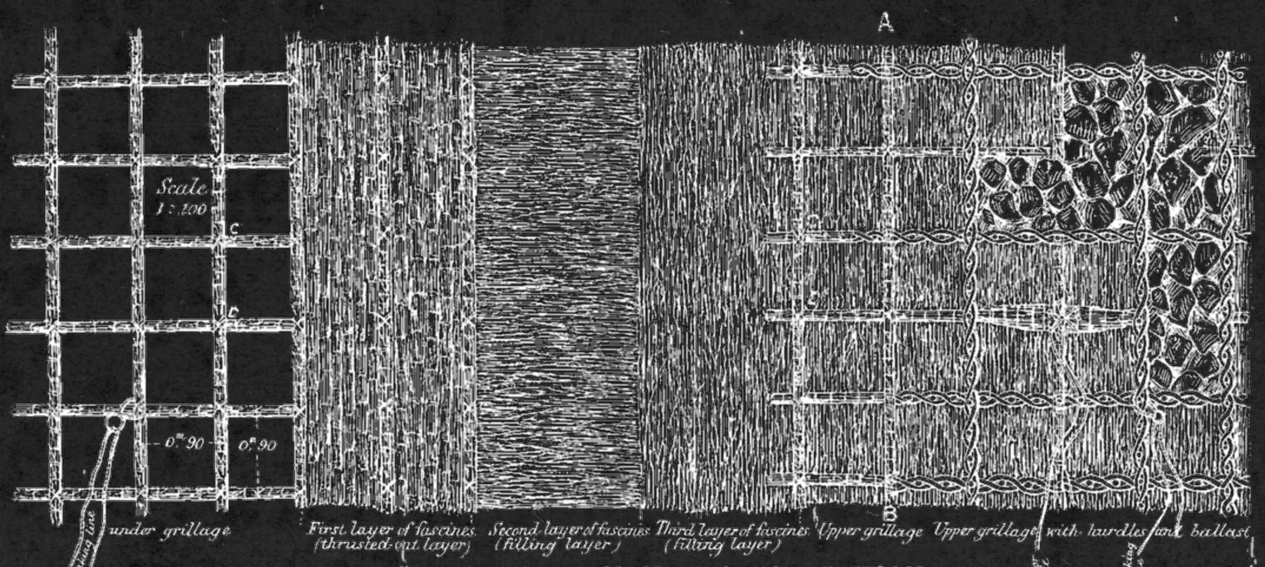
ZINKSTUK. Plaat 43.

Rijsvulling. 1/100.-

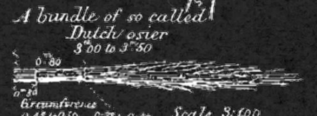

Gangboord.
3e rijslaag.
of.
deklaag.
Bovenroosterwerk.
Gangboord.
Prop- plaats.
0.90
sjorringtouw.
wiep.
Staak.
Staak.
2e rijslaag.-
1e rijslaag of grondlaag
onderroosterwerk.
wiep.
wiep.-
0.90
0.90

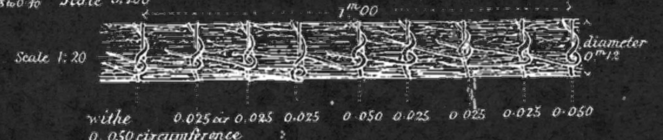
Dwarsdoorsnede.-


Tydelyke staken voor sjorring-touwtjes.

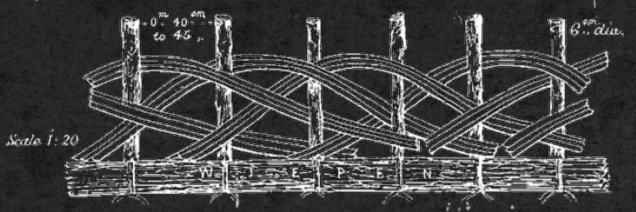

A
Scale 1:100
C
C
0m 90
0m 90
Sinking line
under grillage
First layer of fascines (thrusted-out layer)
Second layer of fascines (filling layer)
Third layer of fascines (filling layer)
B
Upper grillage
Upper grillage with hurdles and ballast
Anchor cable
Sinking line

PLAN SHOWING THE CONSTRUCTION OF A MATTRASS "ZINKSTUK"


A bundle of so called Dutch osier
3m00 to 3m50
0m80
0m30
Circumference
0.45 to 0.50
0.38 to 0.40
Scale 3:100

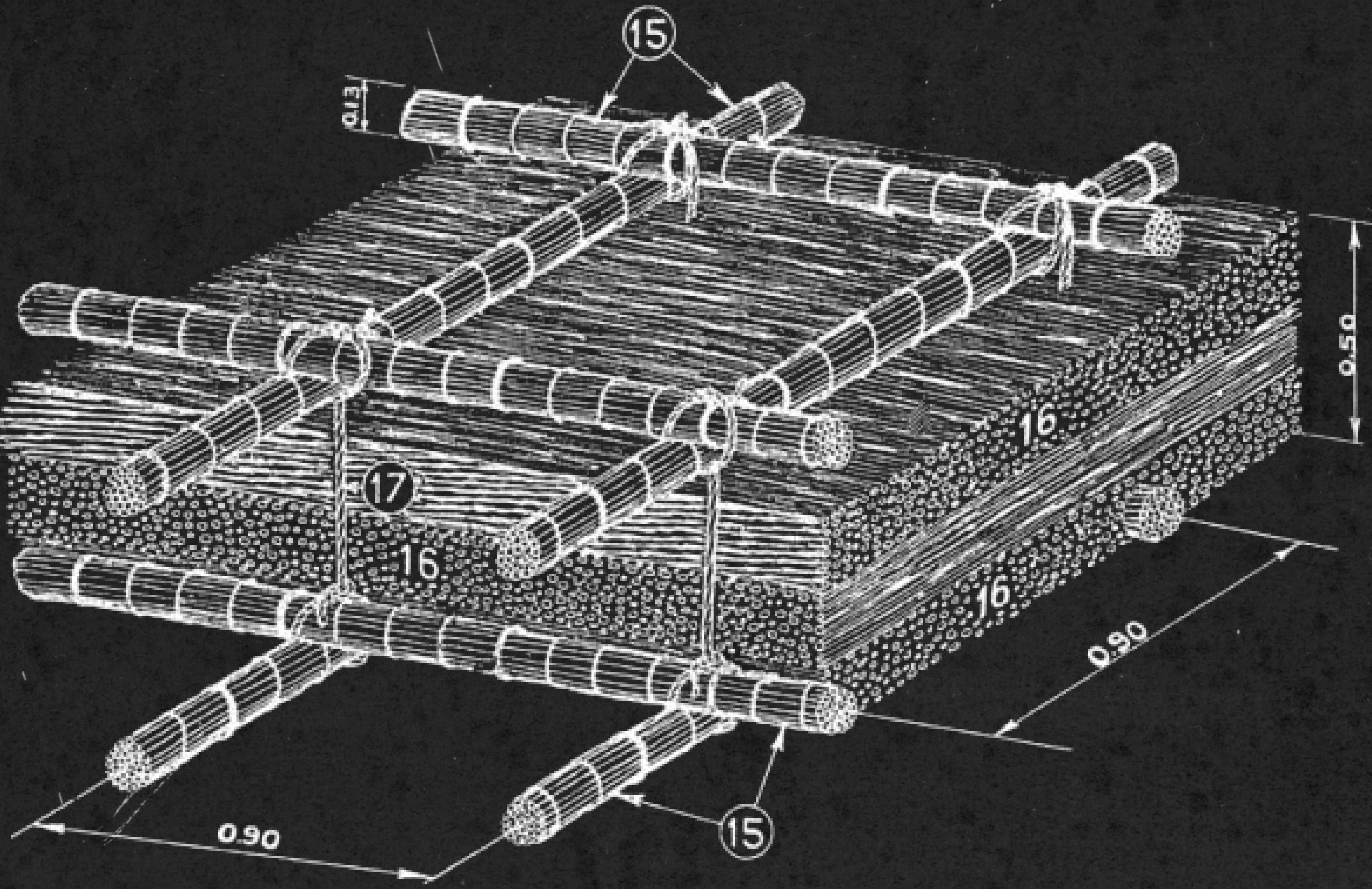

1m00
Scale 1:20
diameter 0m12
withe
0.050 circumference
0.025 or 0.025
0.025
0.050
0.025
0.025
0.025
0.050

PART OF A "WIEP" (SAUCISSON.)


0m40cm to 45
6cm dia.
Scale 1:20
W I E P E N

ELEVATION OF "TUIN"

design - fascine canopy


15
0.13
0.50
17
16
16
16
0.90
0.90
15

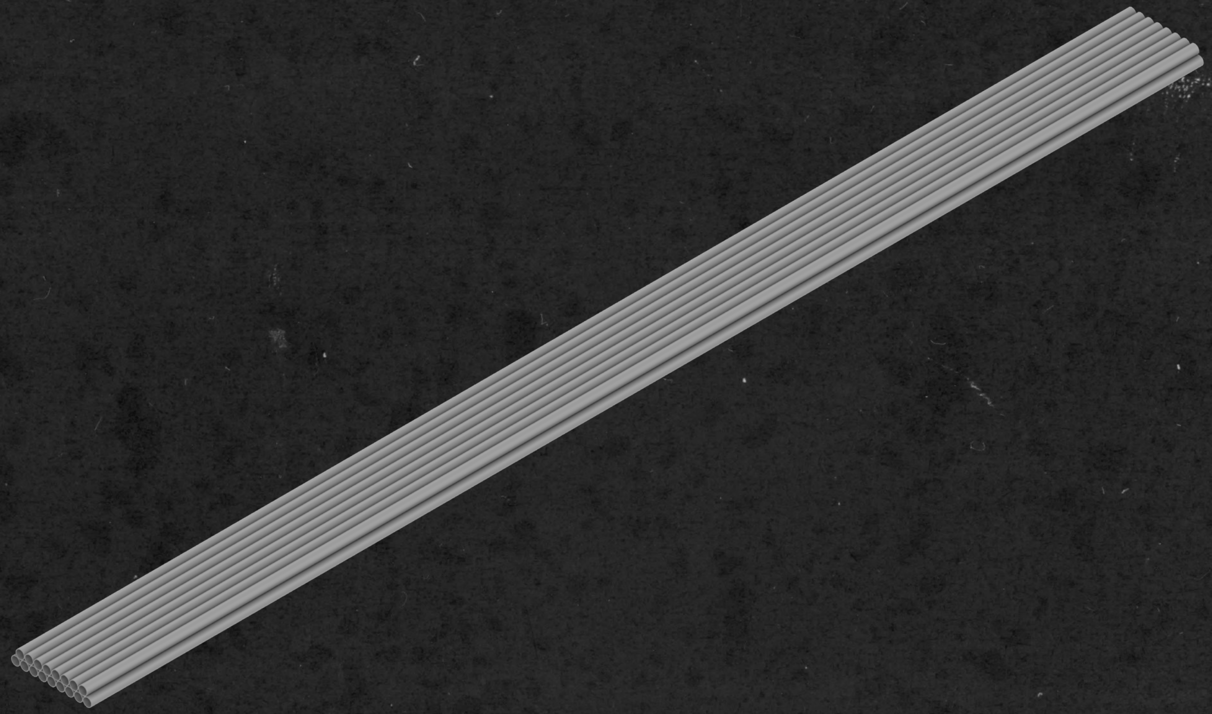
Schematische voorstelling
van rijzenbed.

Verklaring:

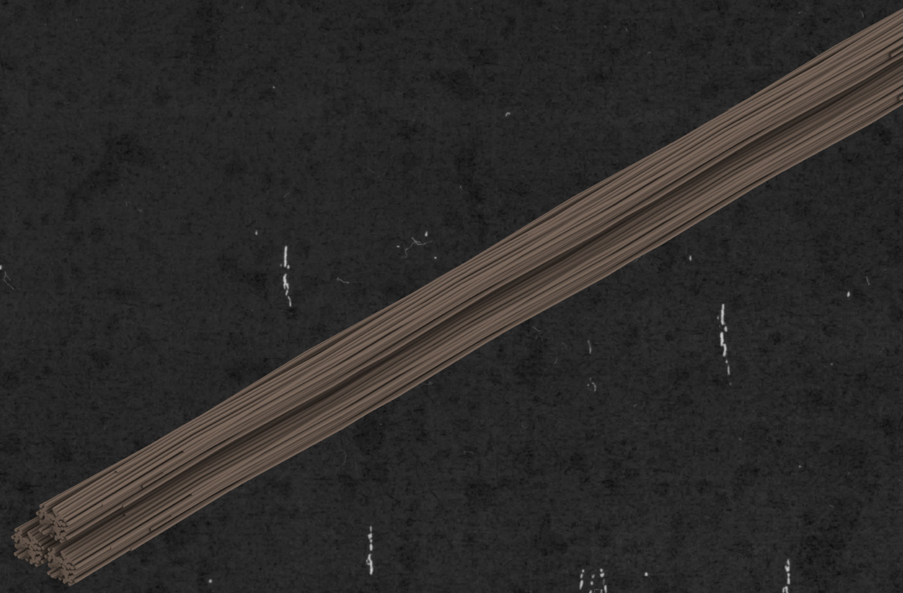
15. Onder- en boven-
roosterwerk van
wiepen.
16. Rijshoutvulling.
17. Sjorring-touwen.

design - fascine canopy

telescopic
light masts



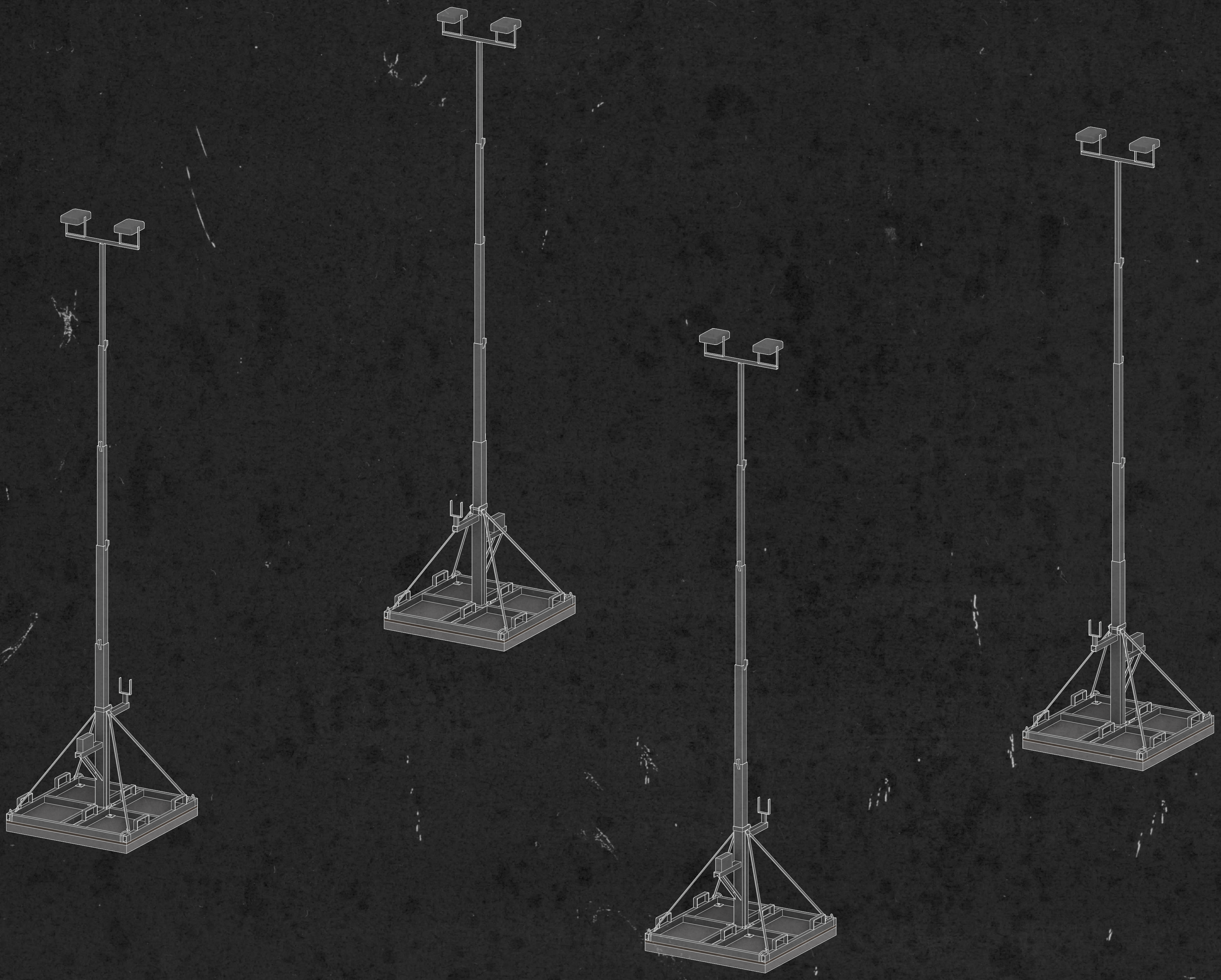
scaffolding pipes
and joints



fascines
(rijzenhout)

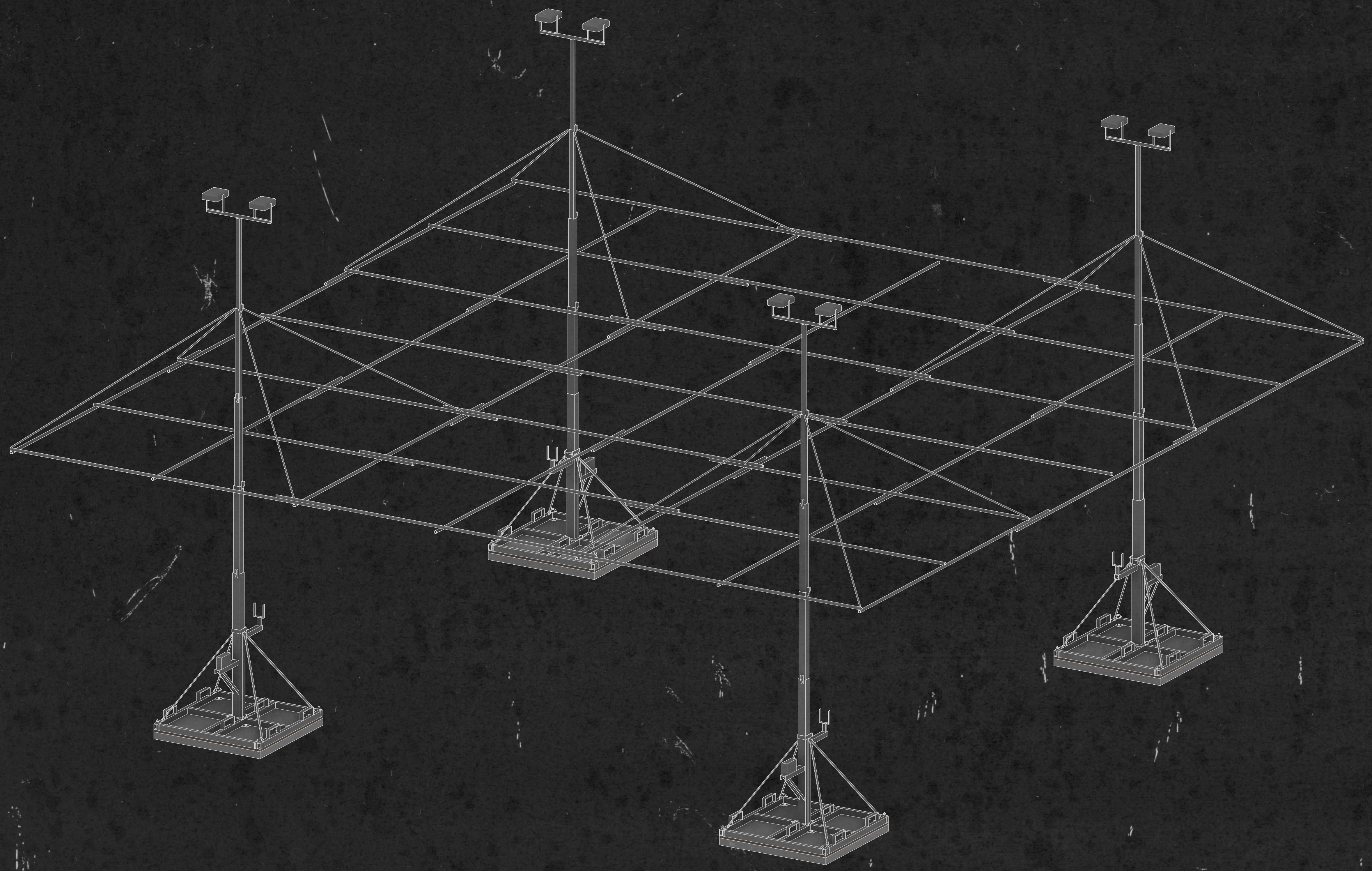
materials

design - fascine canopy



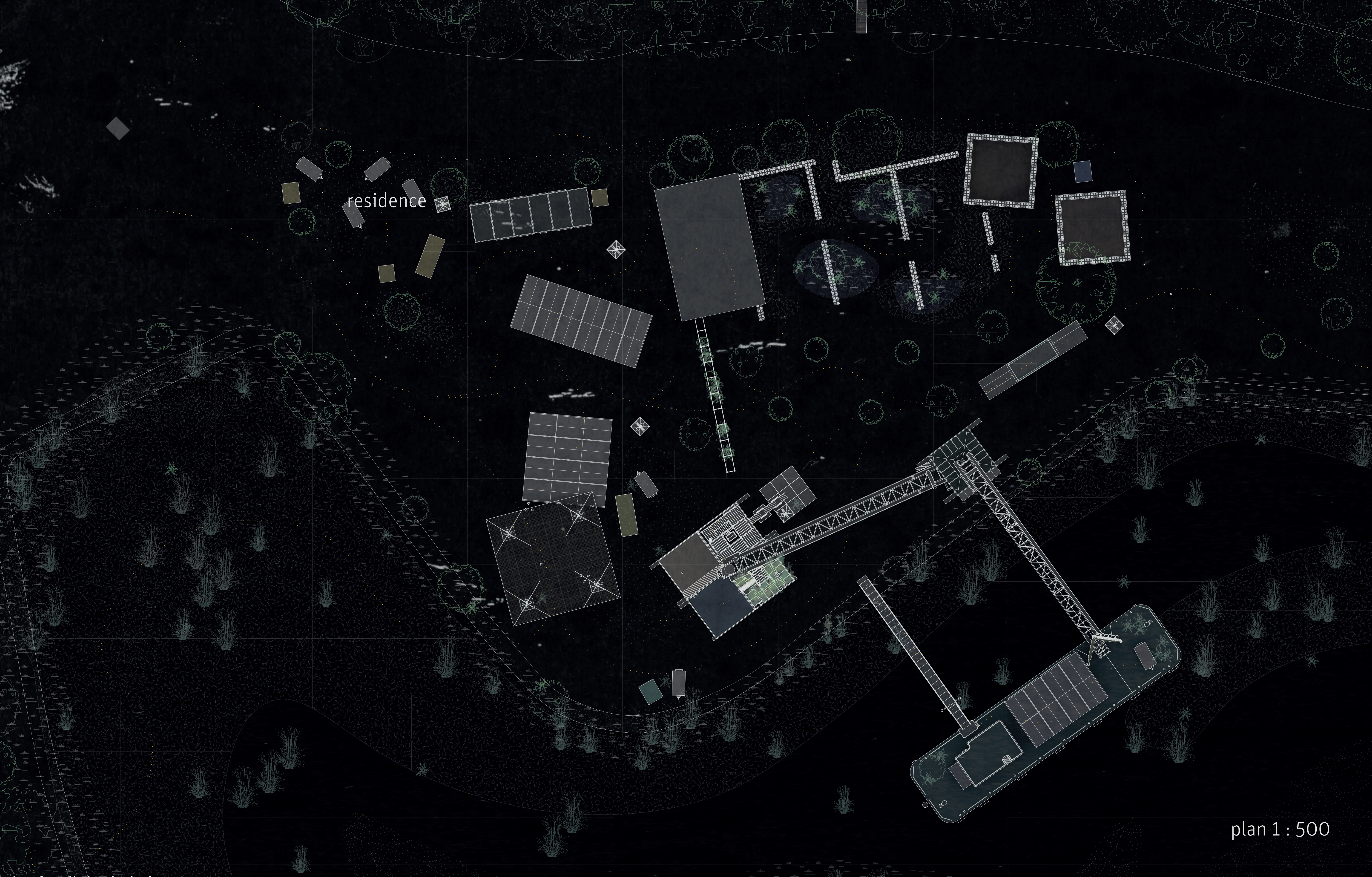
axonometry assemblage

design - fascine canopy

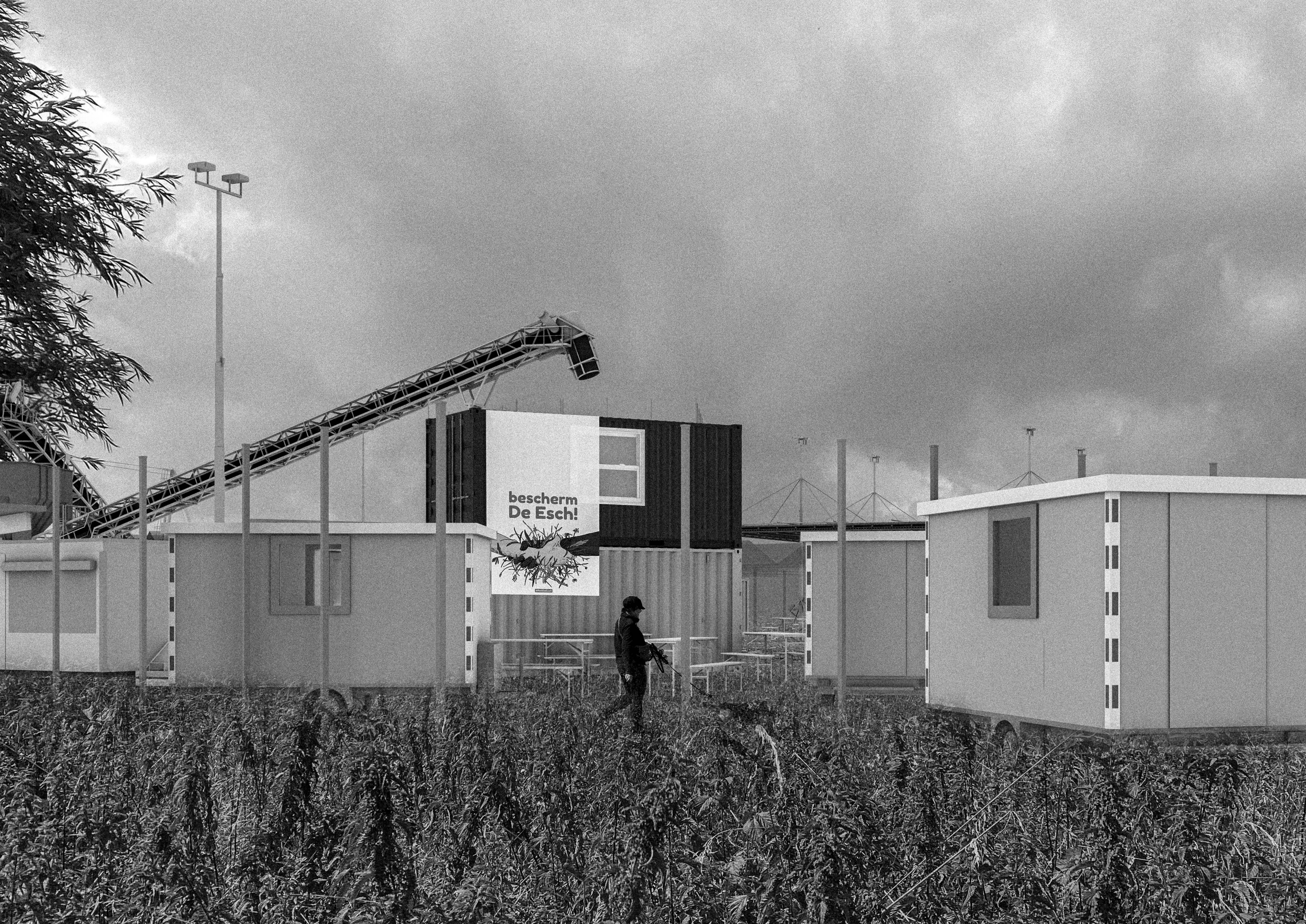


axonometry assemblage

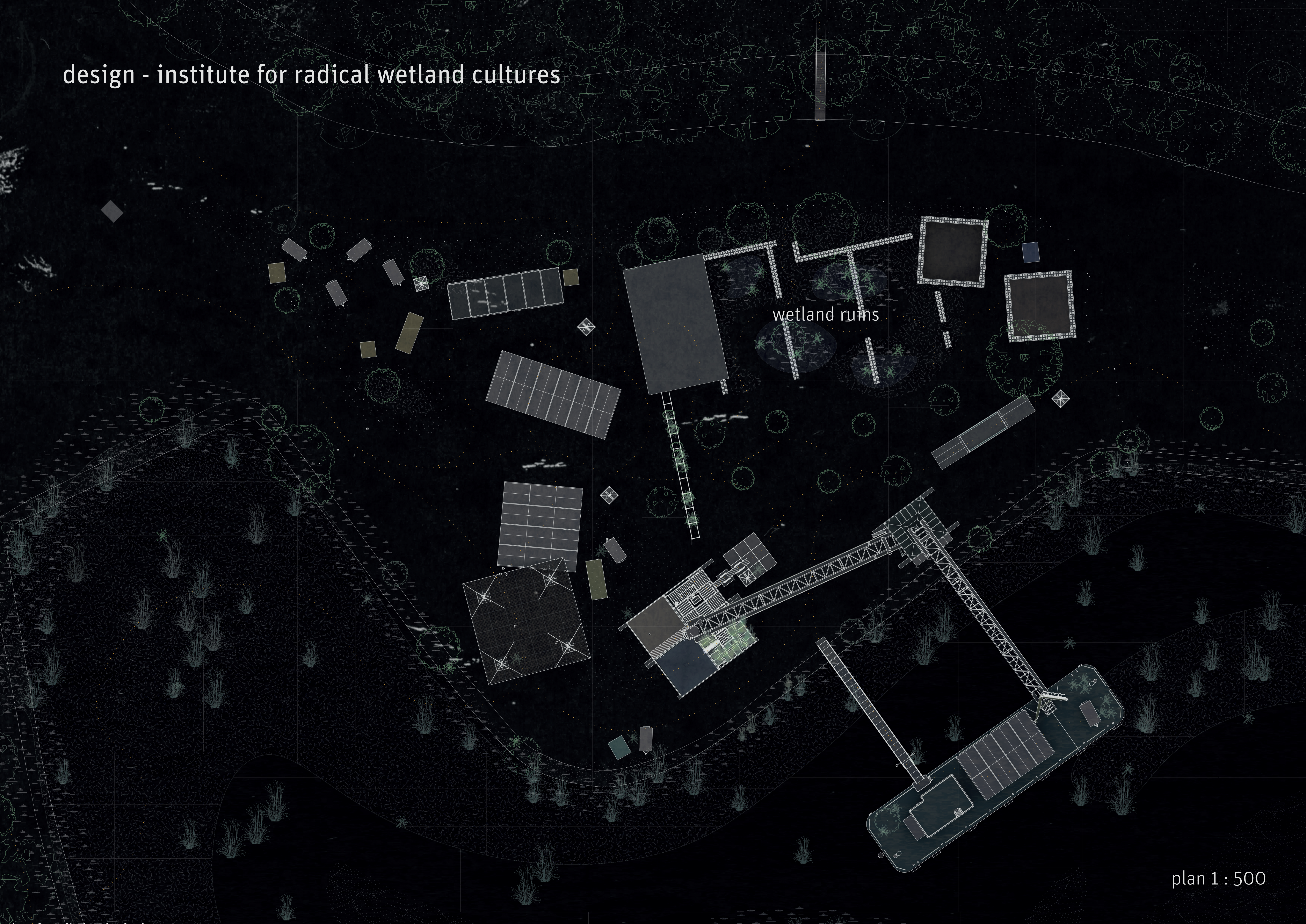
design - institute for radical wetland cultures



plan 1 : 500

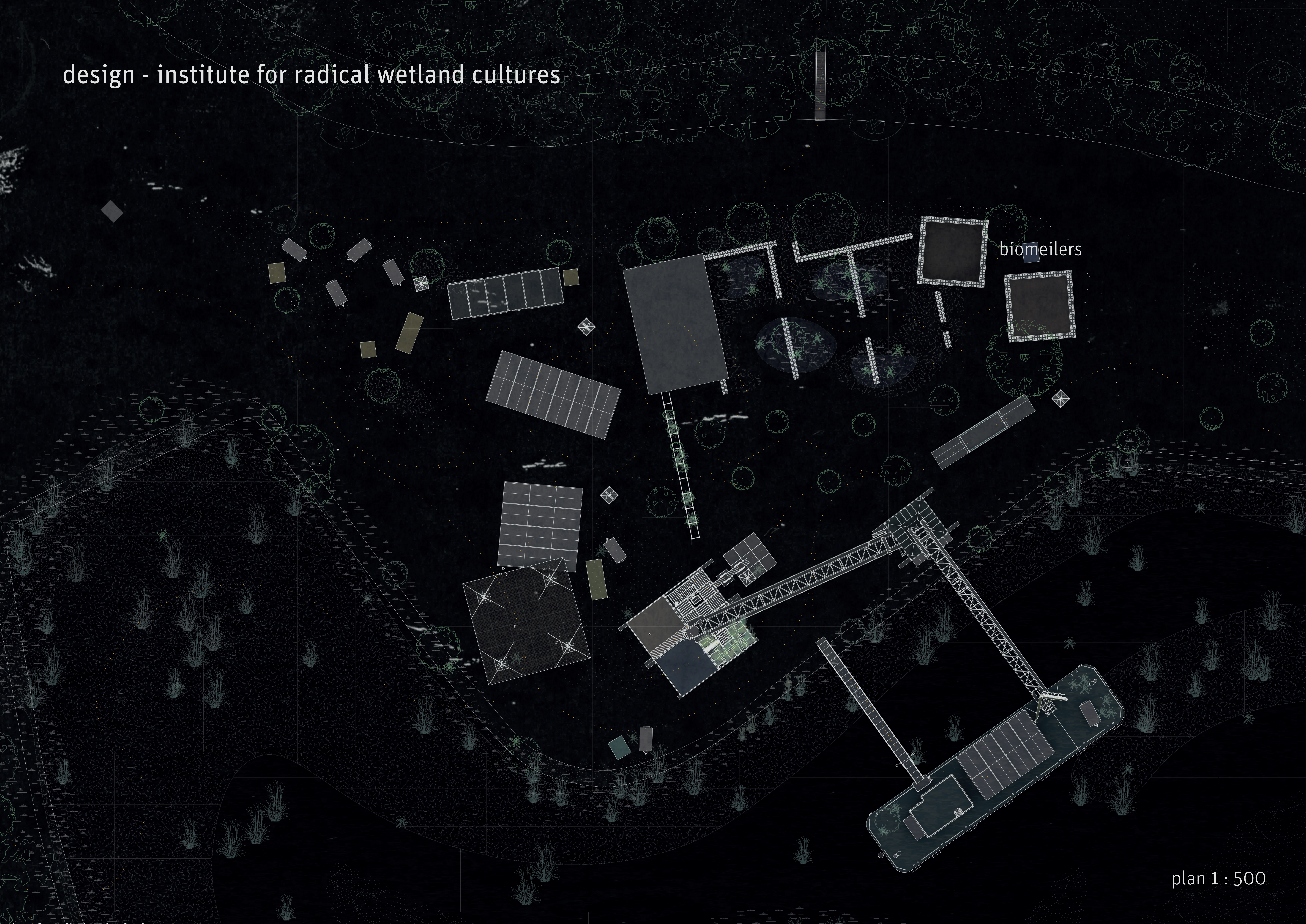

bescherm De Esch!
#RedDeEsch

design - institute for radical wetland cultures


wetland ruins

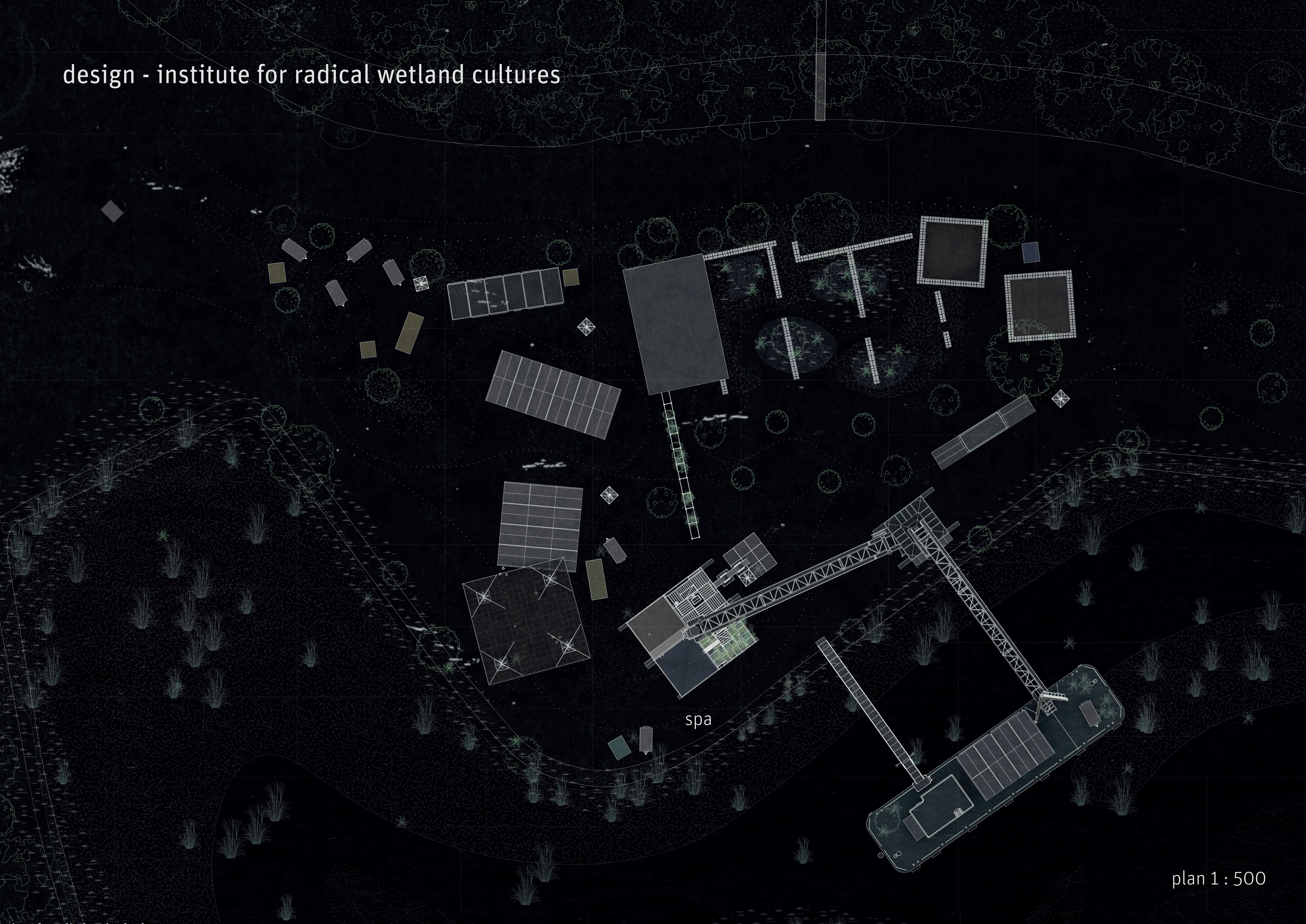
plan 1 : 500

design - institute for radical wetland cultures


biomeilers

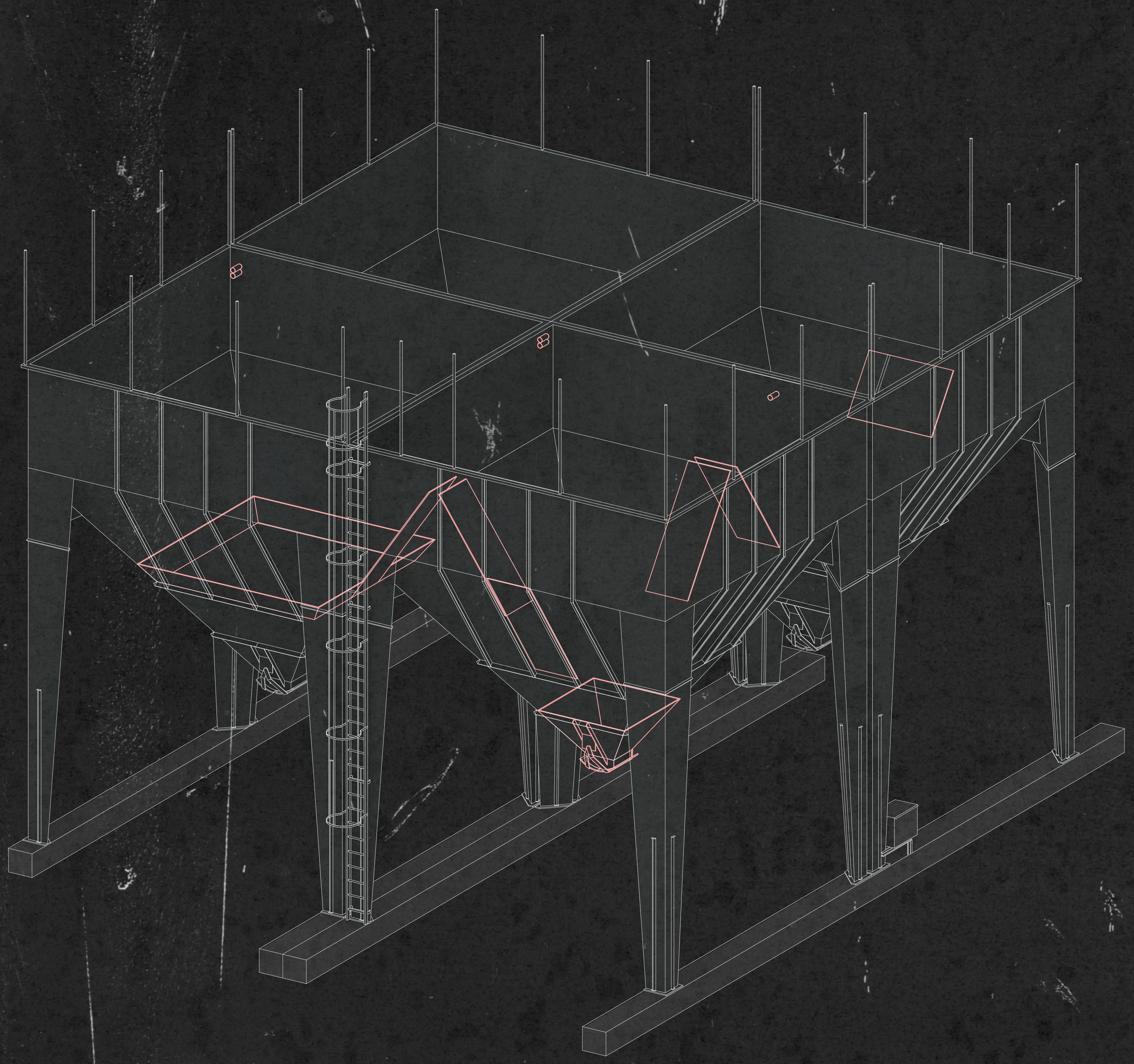
plan 1 : 500

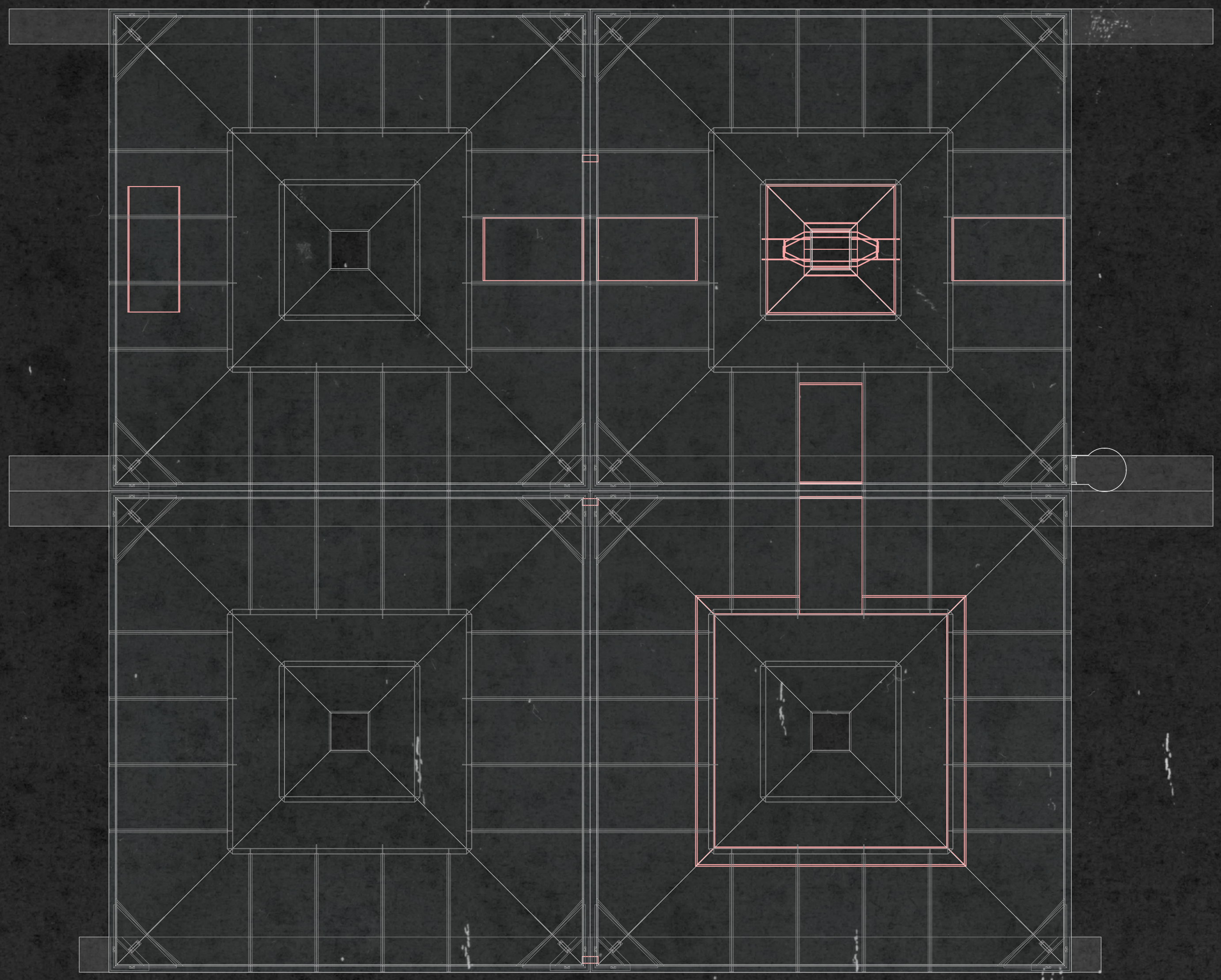
design - institute for radical wetland cultures



plan 1 : 500

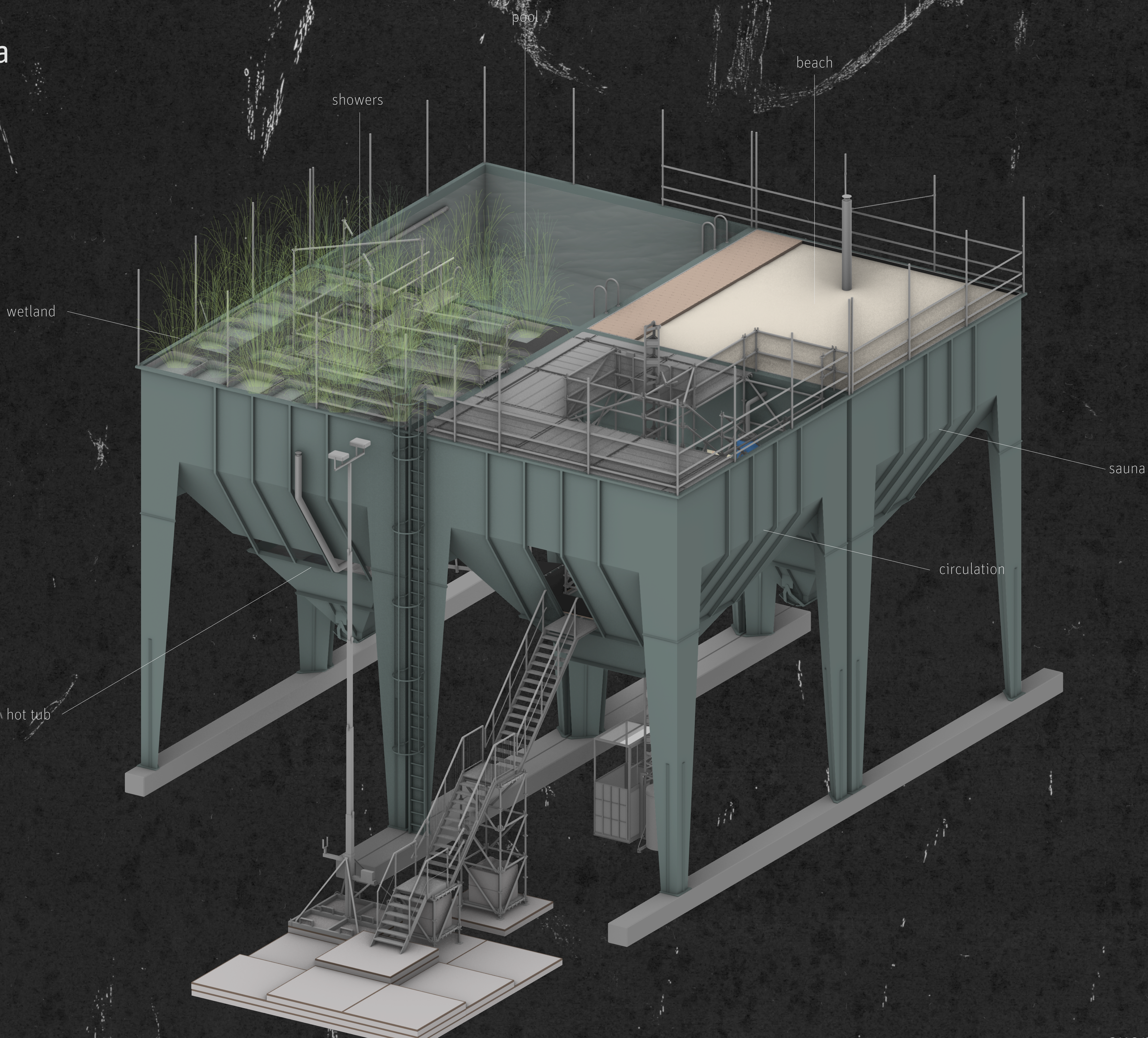
design - silo spa





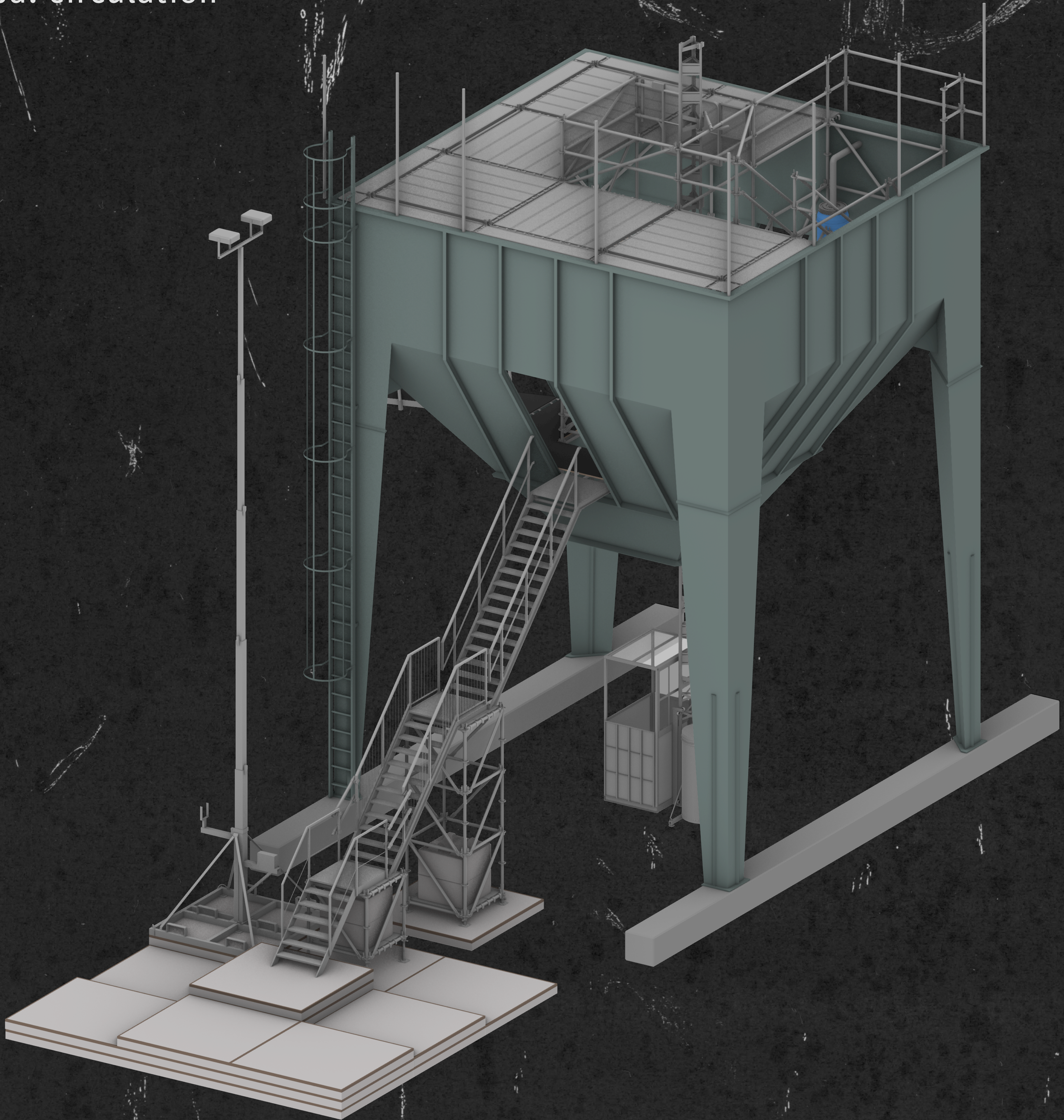
plan & axonometry cuts

design - silo spa


pool
beach
showers
wetland
sauna
circulation
hot tub

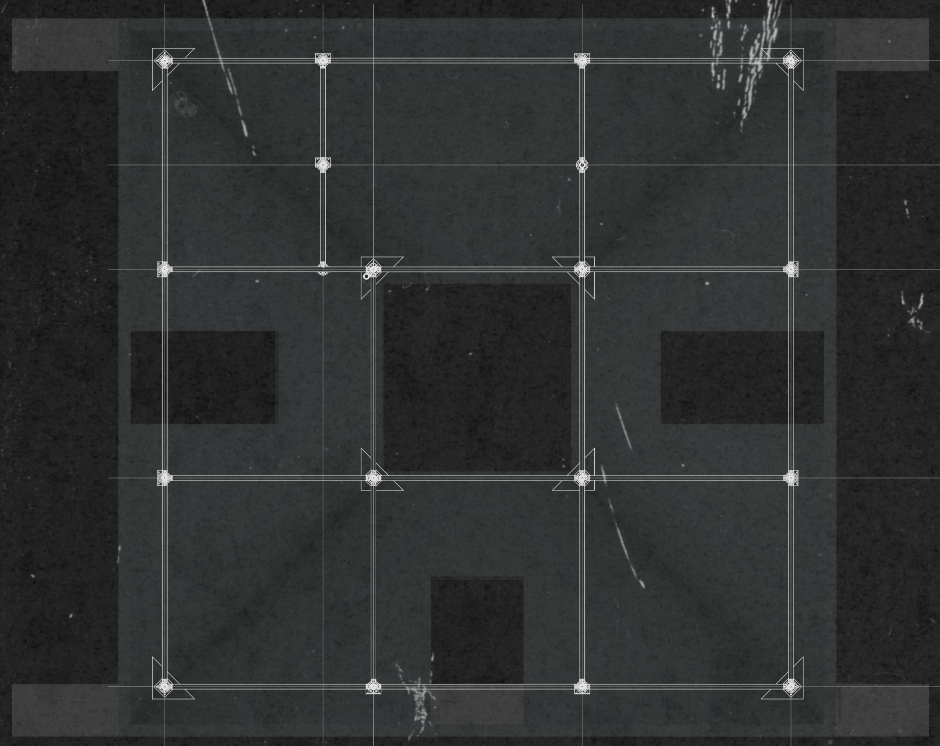
axonometry silos

design - silo spa: circulation

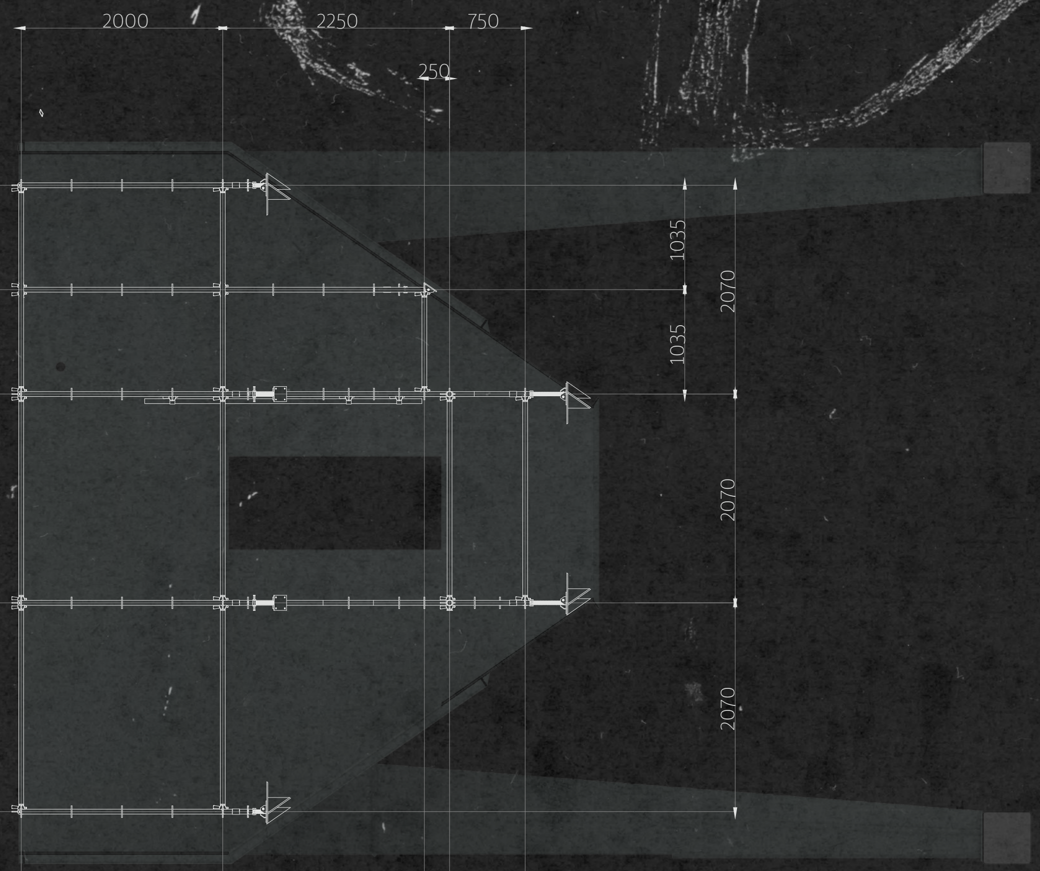


axonometry silo 1

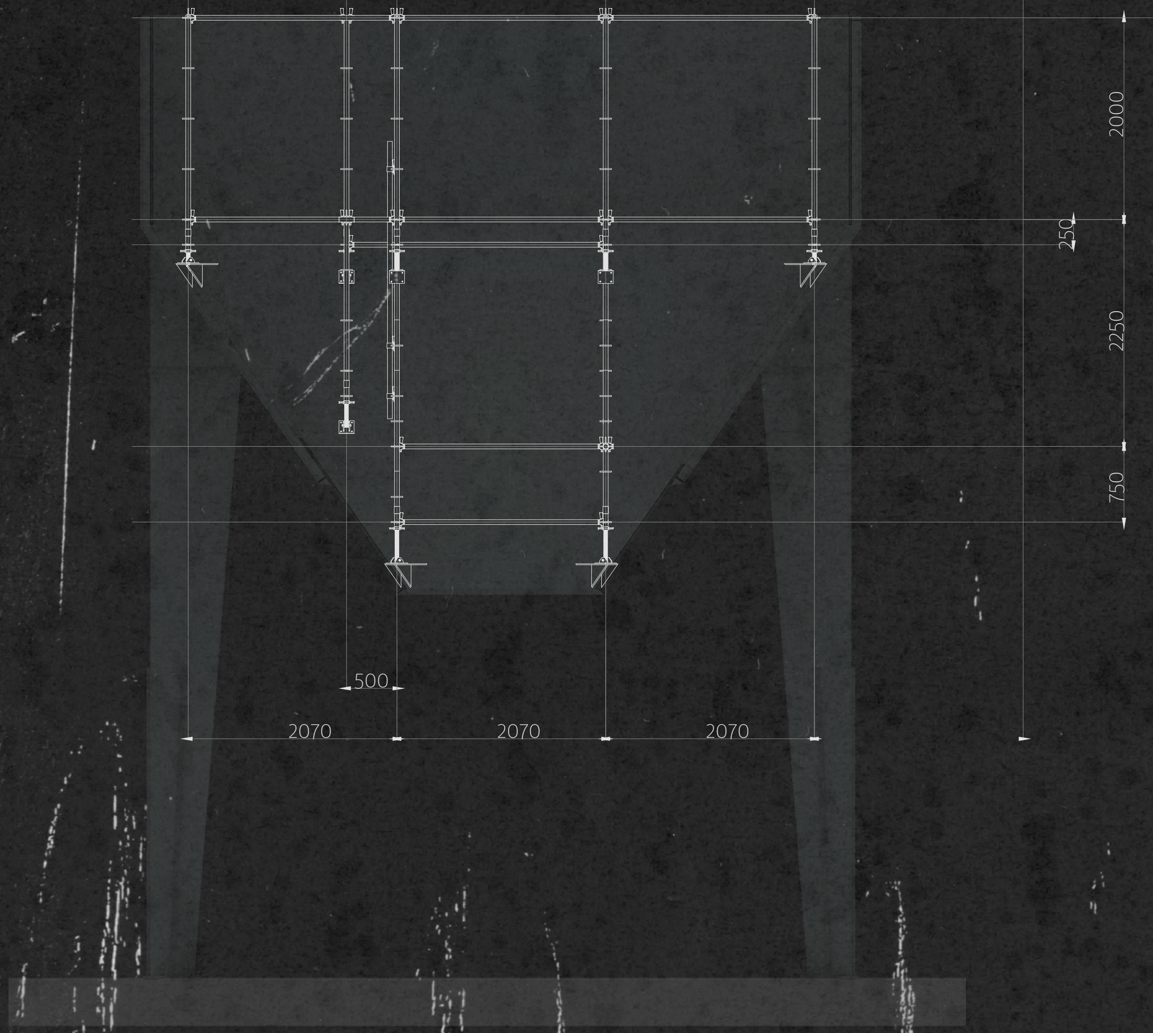
design - silo spa: circulation



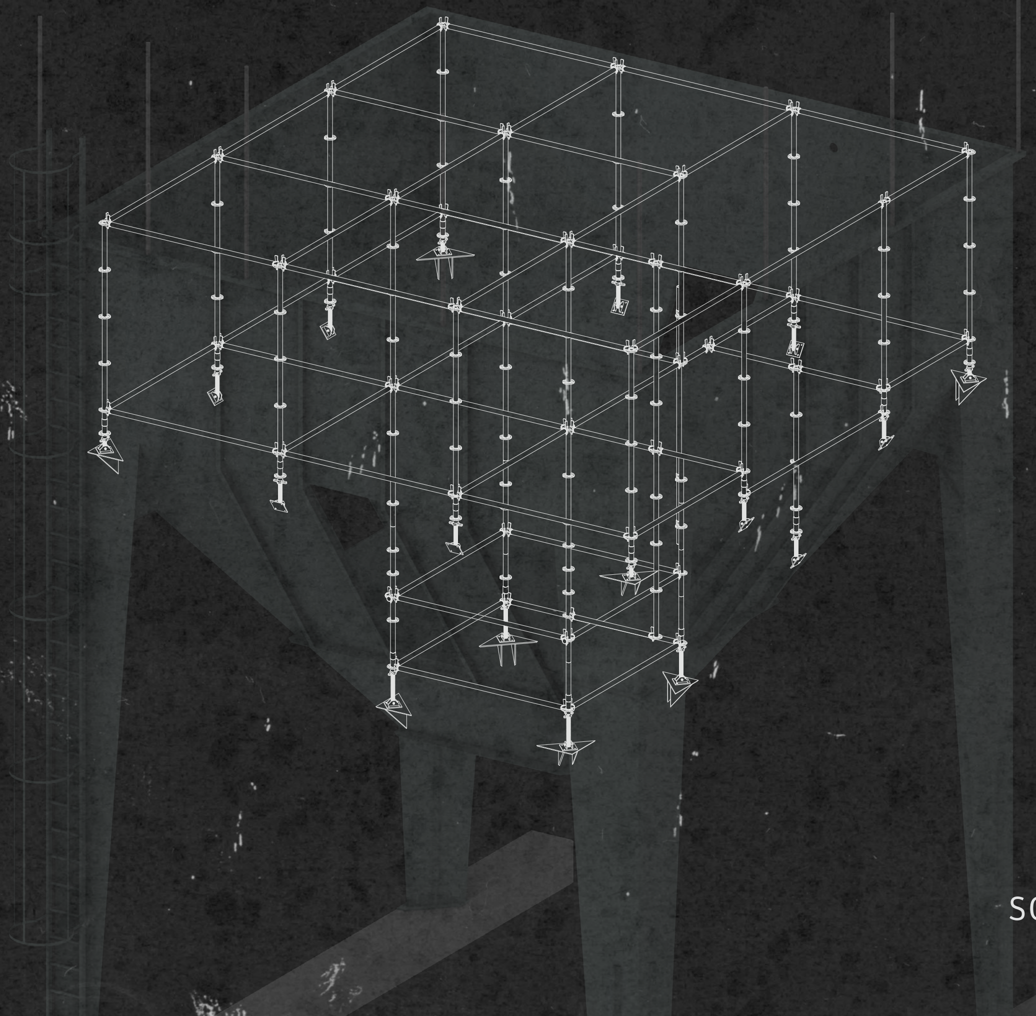
plan


2000
2250
750
250
1035
1035
2070
2070
2070

east section

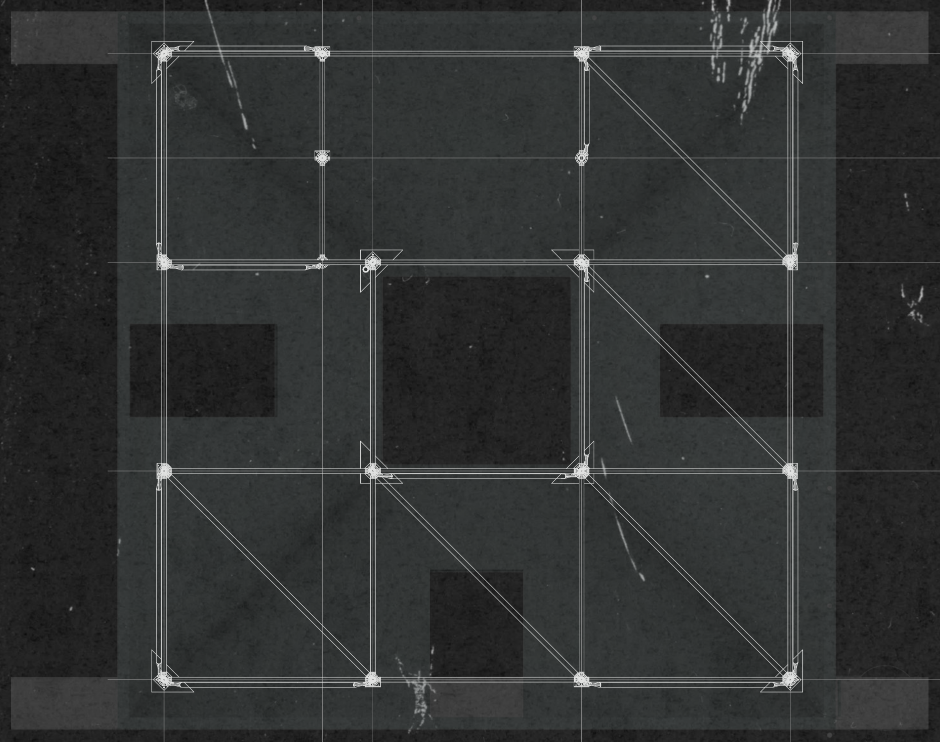

2000
250
2250
750
500
2070
2070
2070

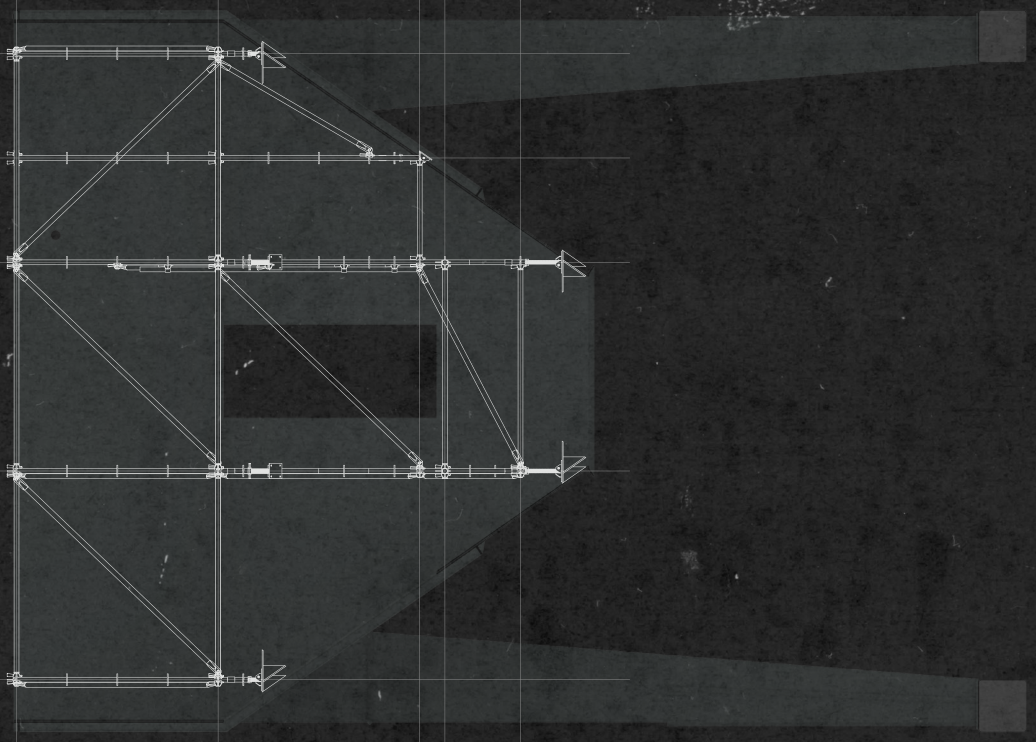
south section

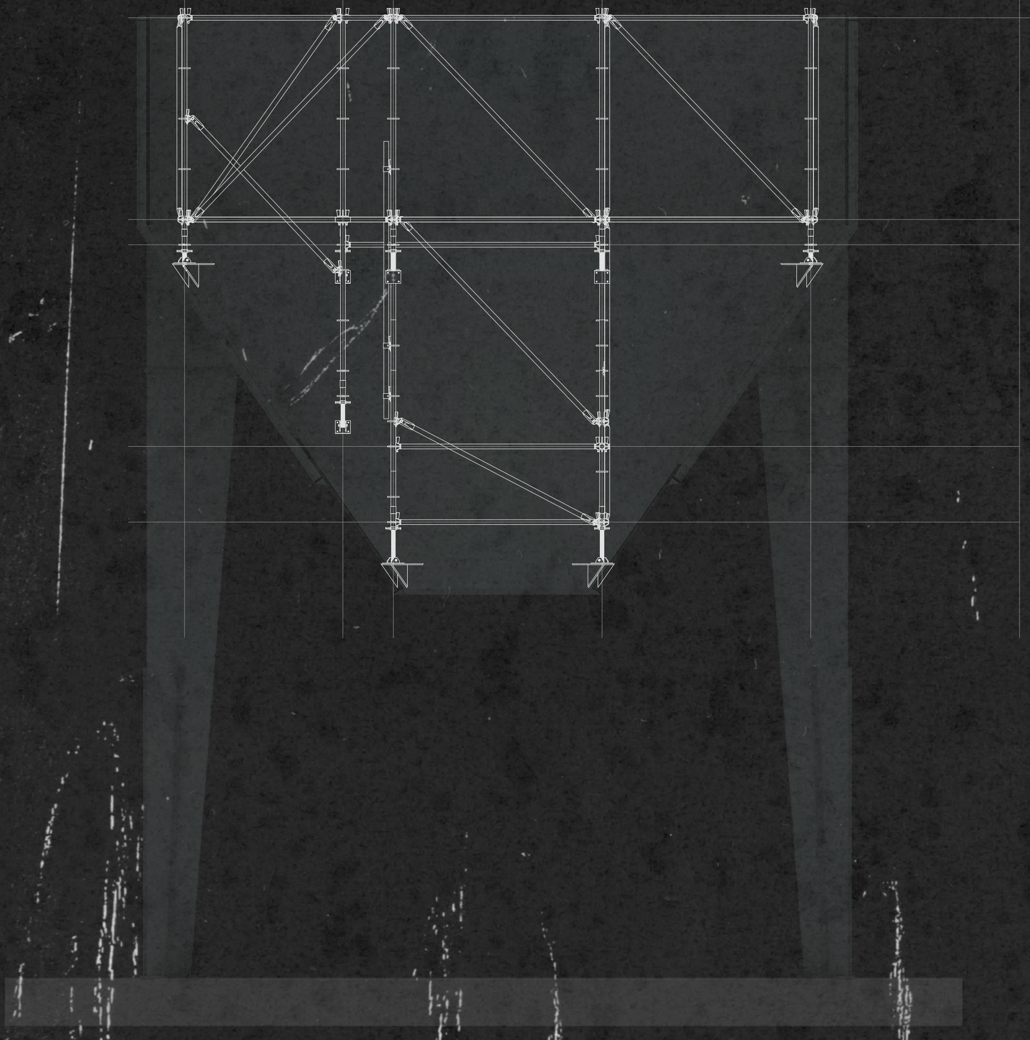


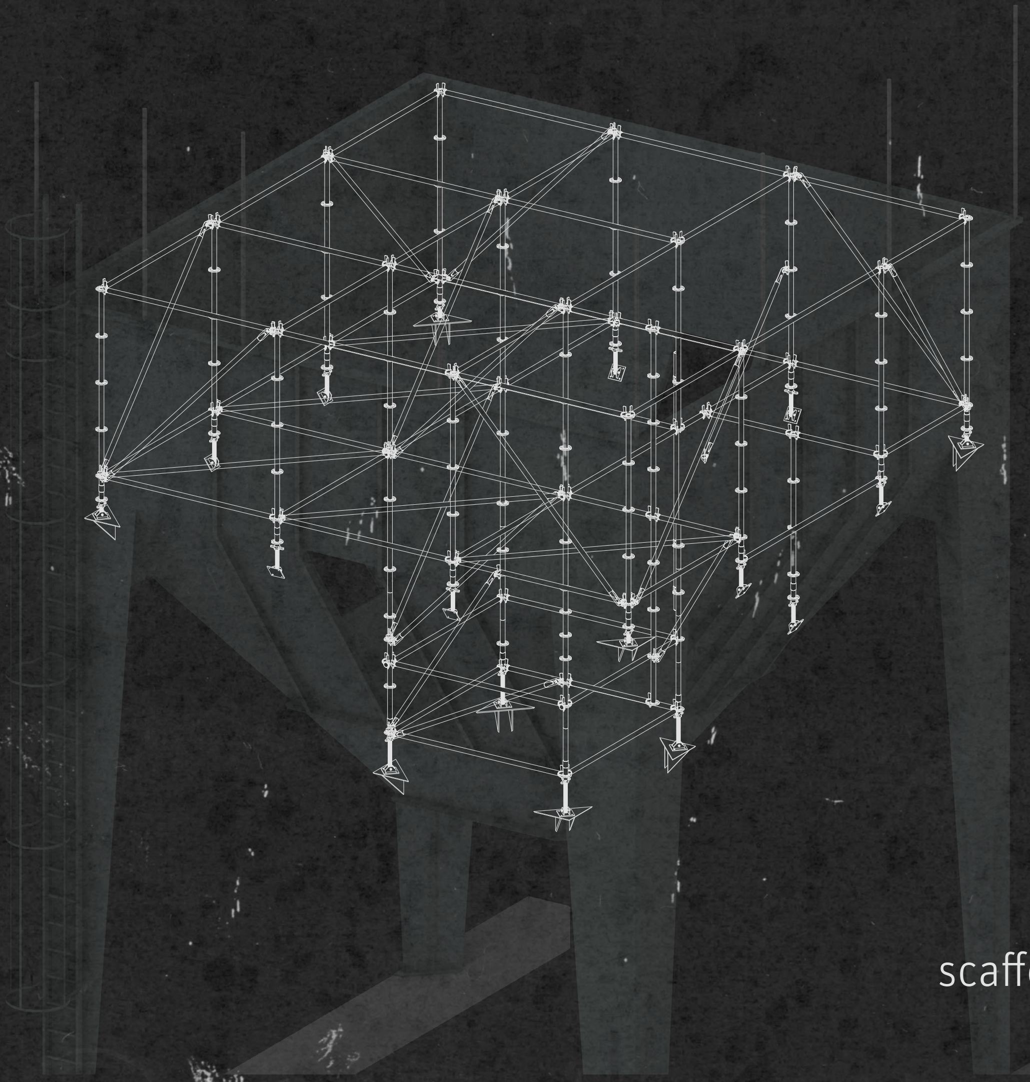
scaffold framing - 1: 75

design - silo spa: circulation

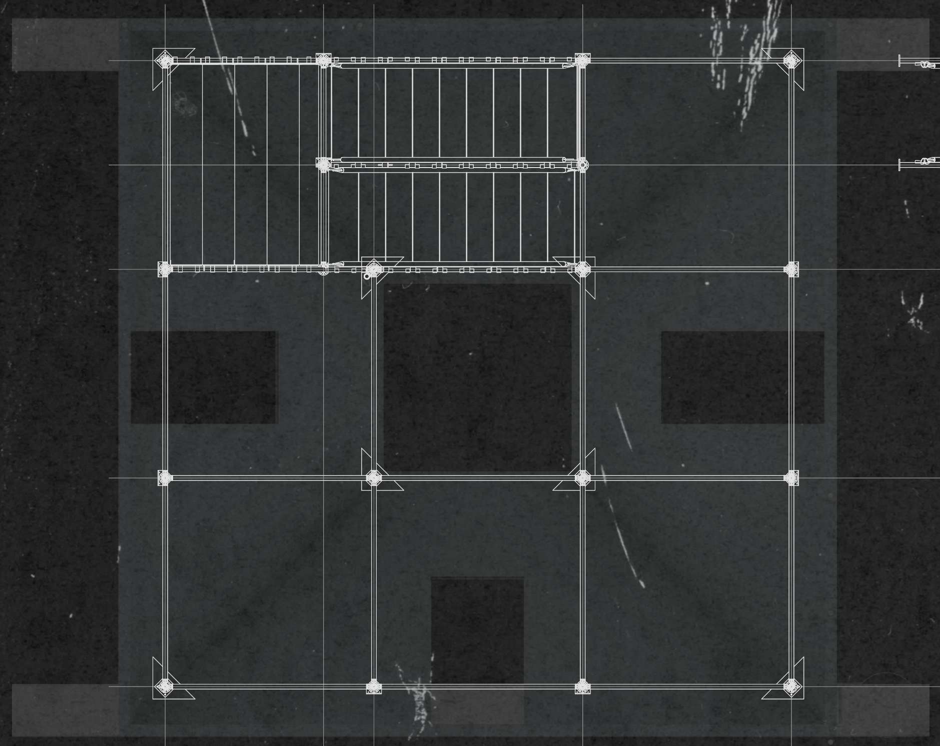

plan


east section

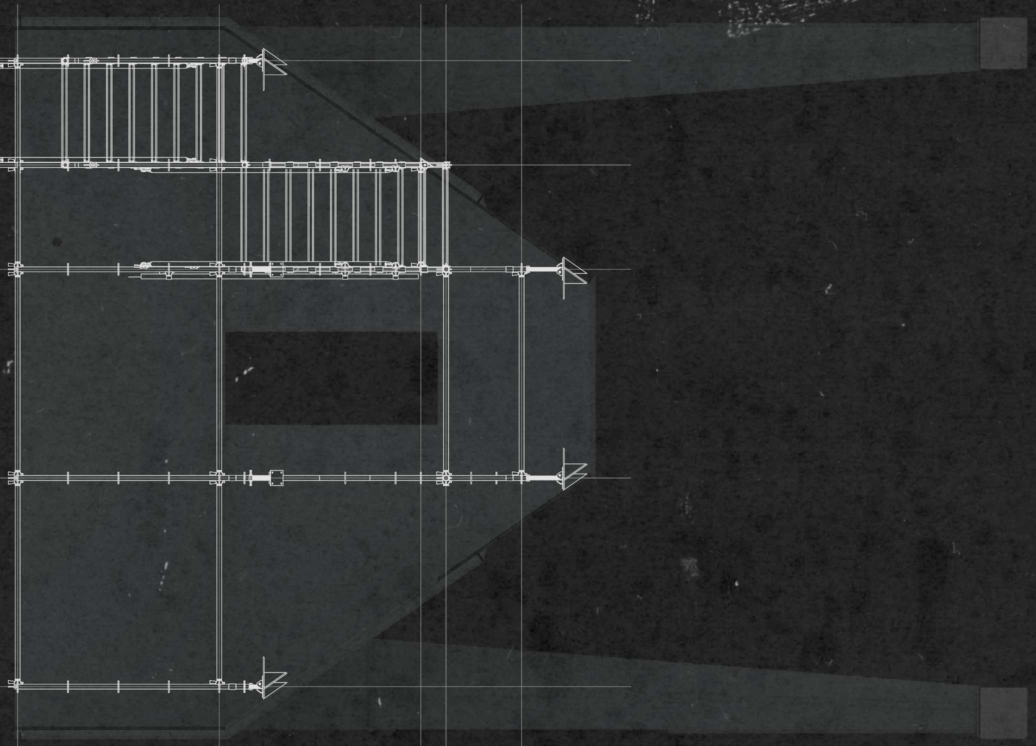

south section


scaffolding stability - 1: 75

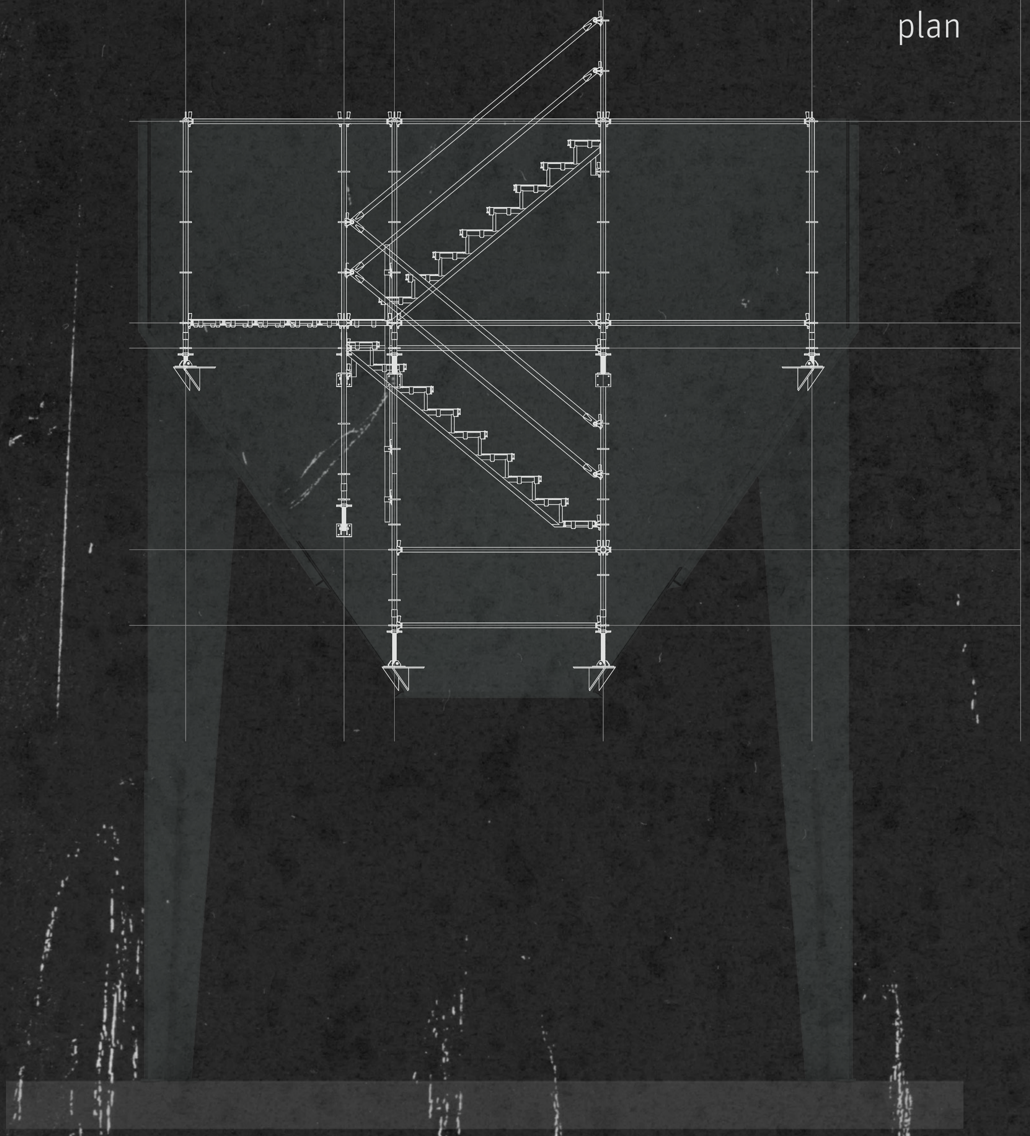
design - silo spa: circulation



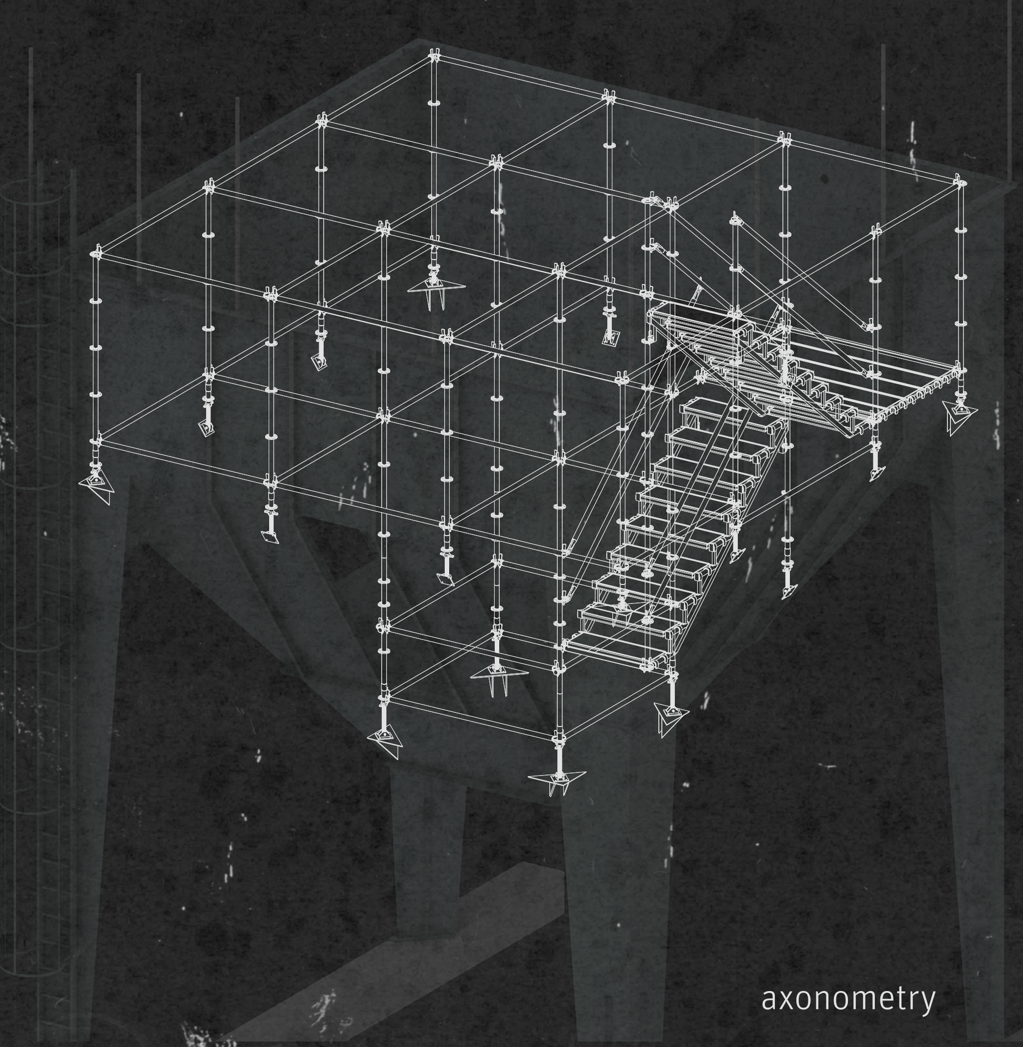
plan



east section



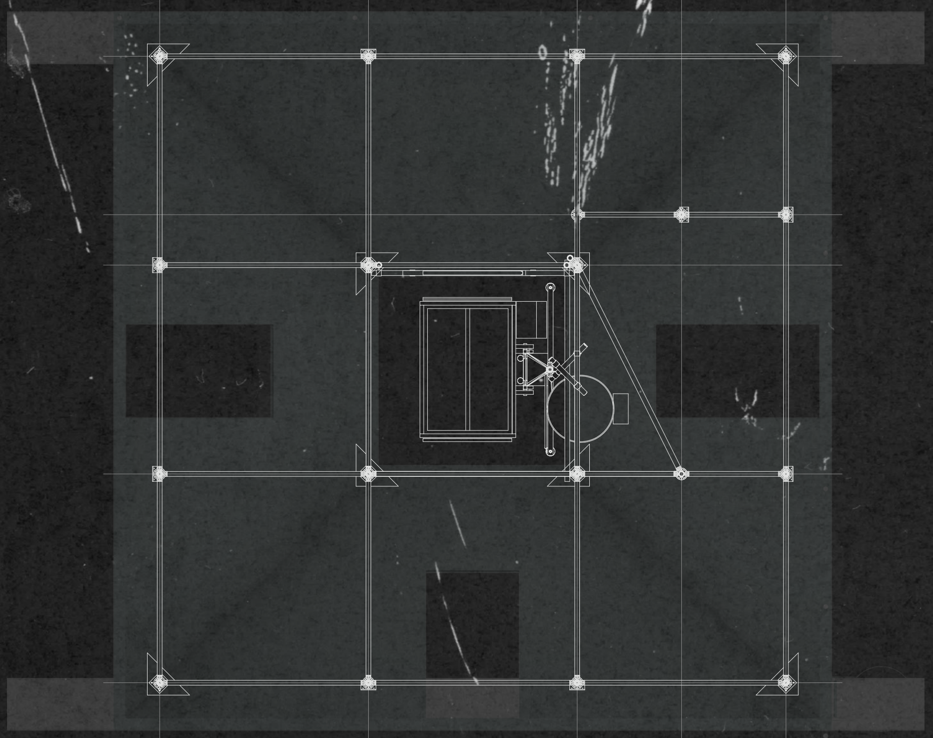
south section



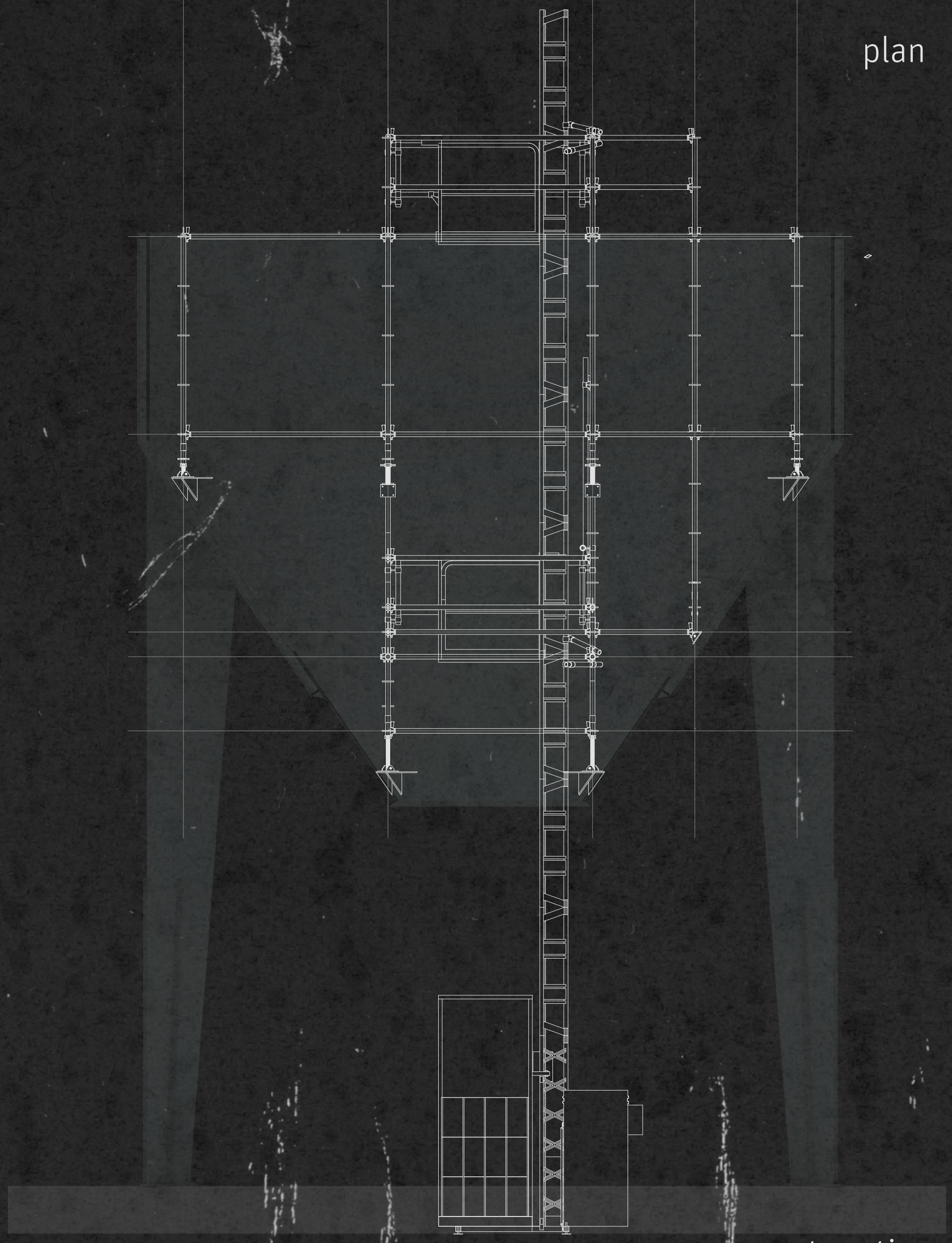
axonometry

stairs internal - 1: 75

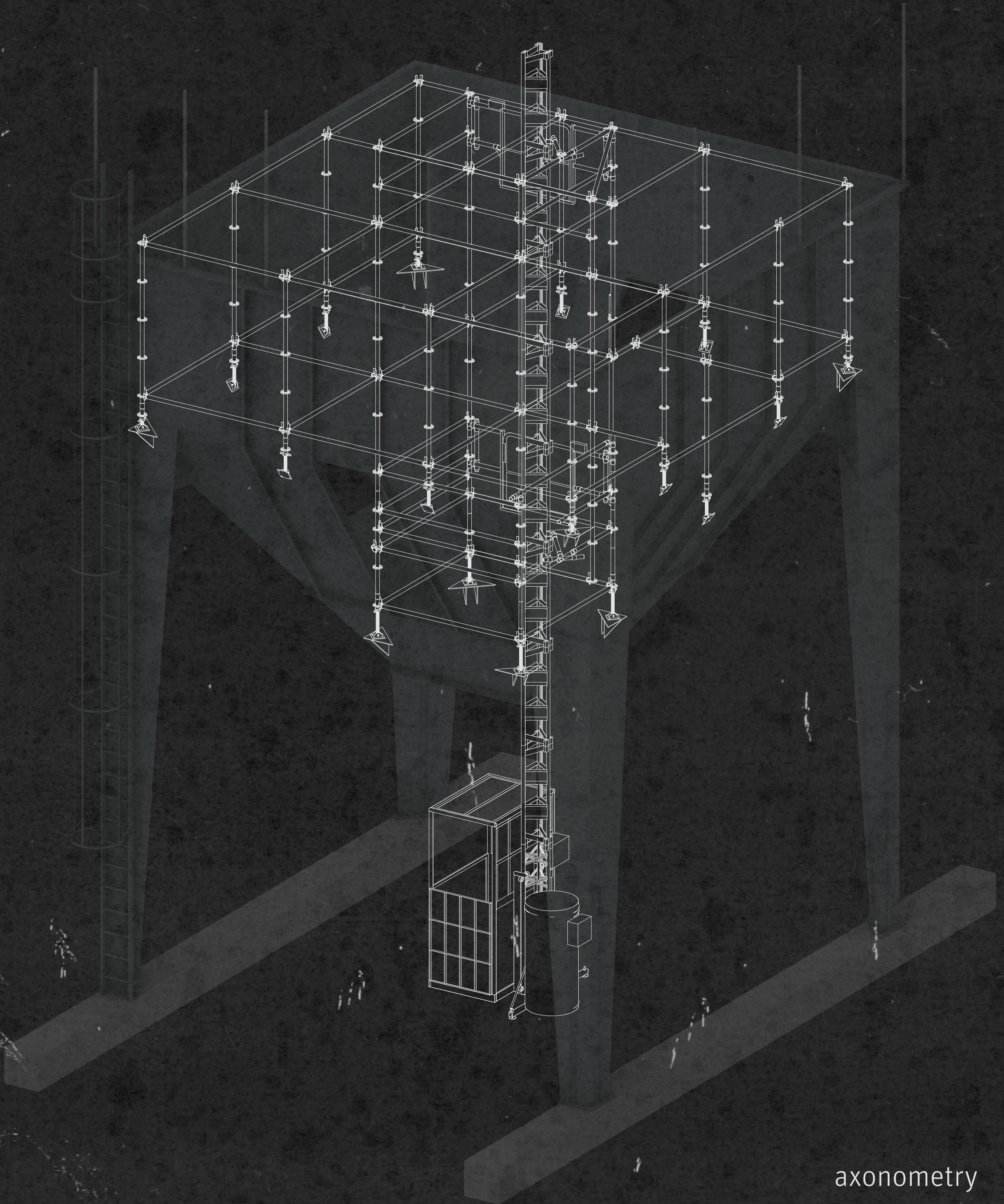
design



plan



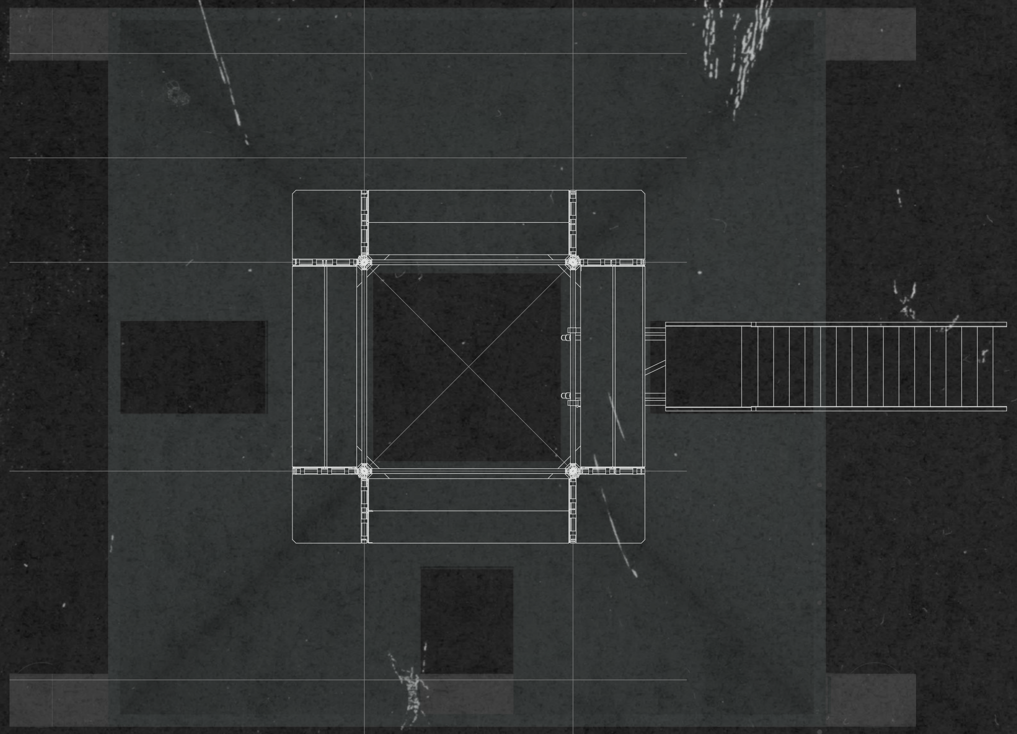
east section



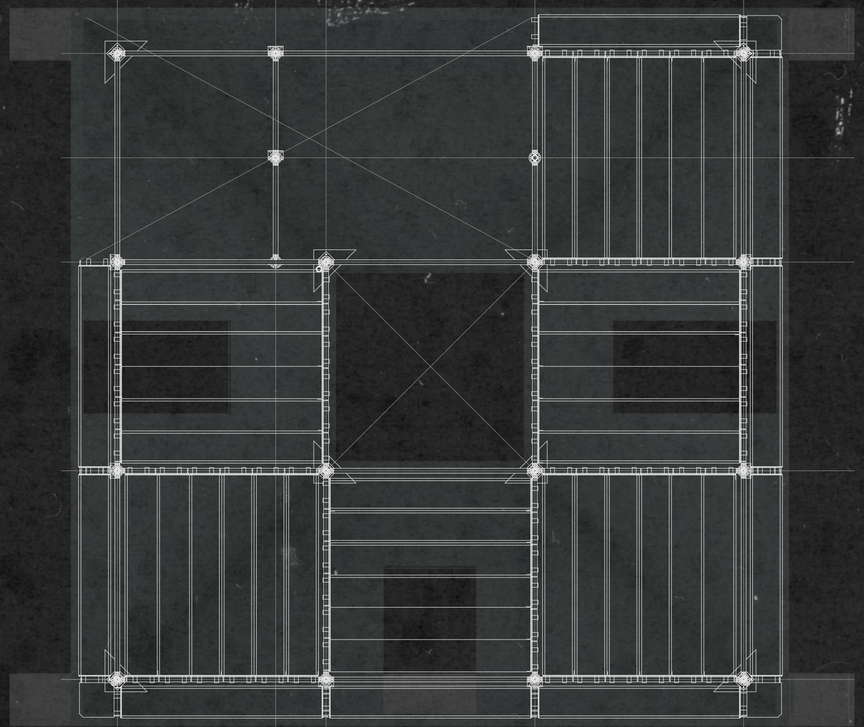
axonometry

elevator (GEDA 300 Z/ZP) - 1: 75

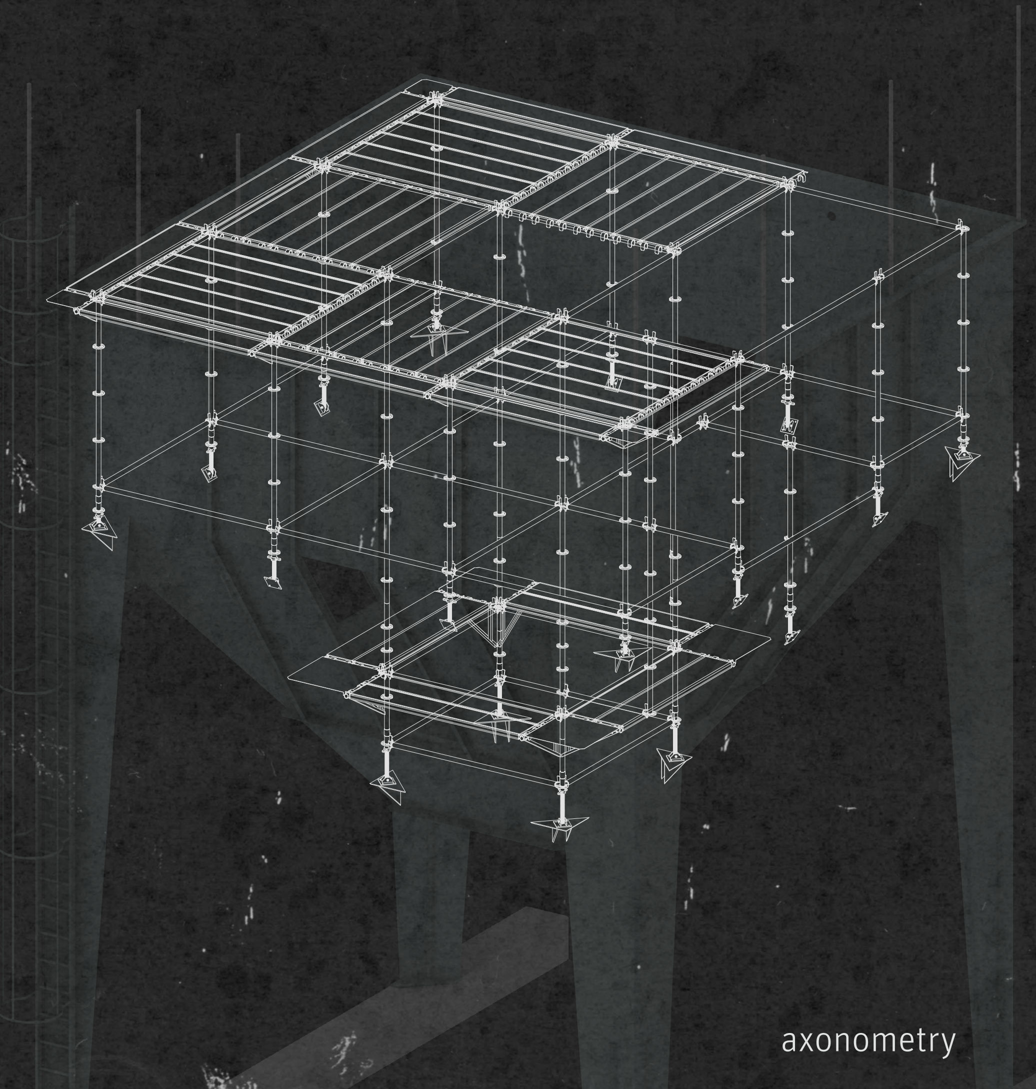
design - silo spa: circulation



plan level 1



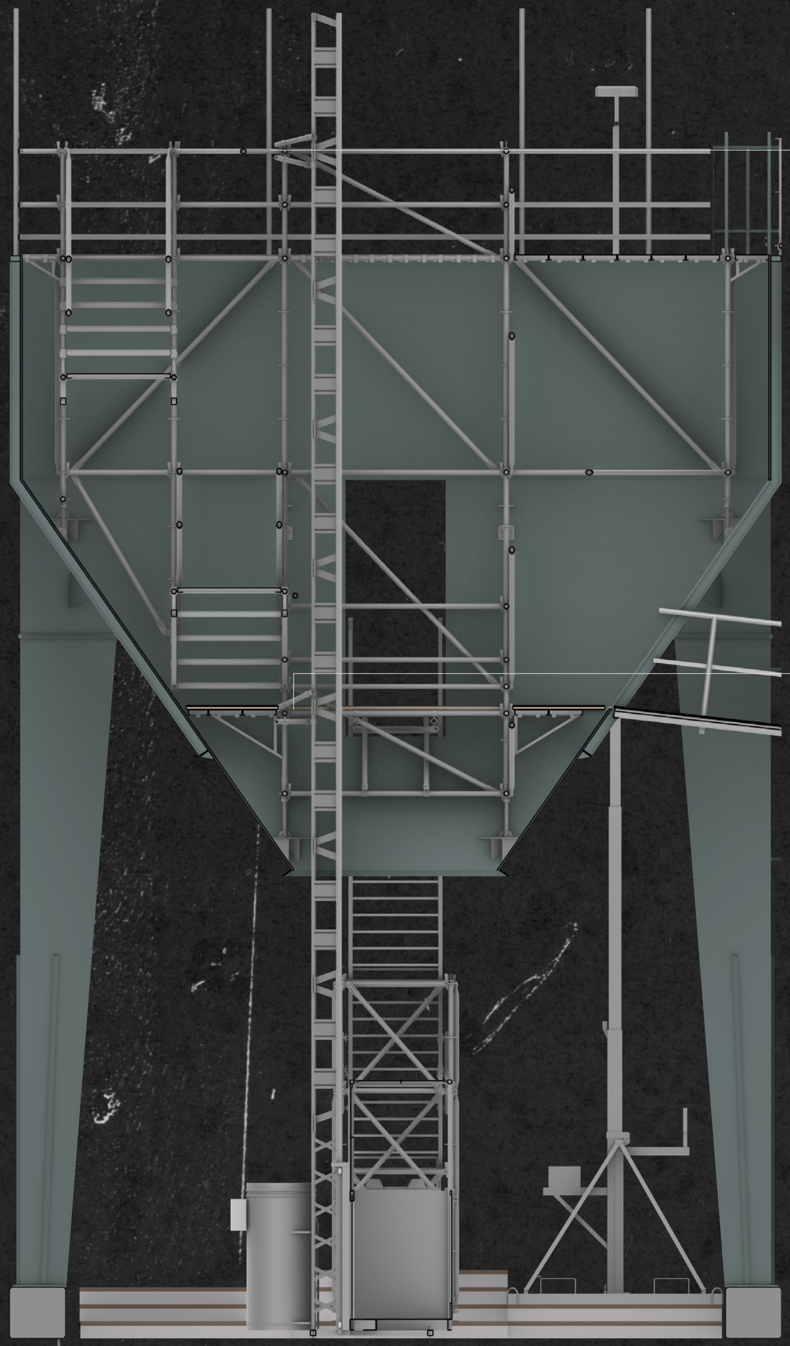
plan level 1



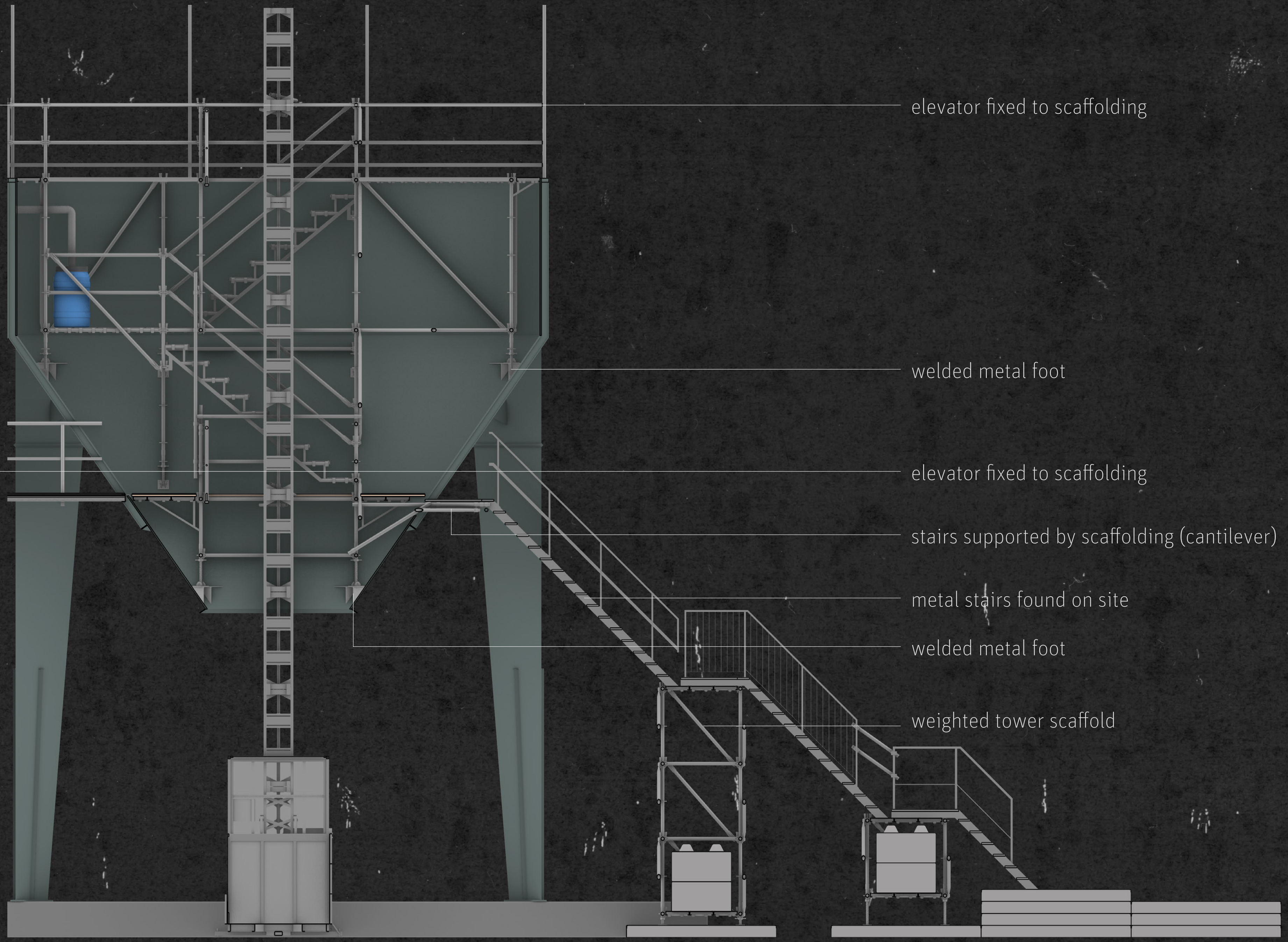
flooring - 1: 75

axonometry

design - silo spa: circulation

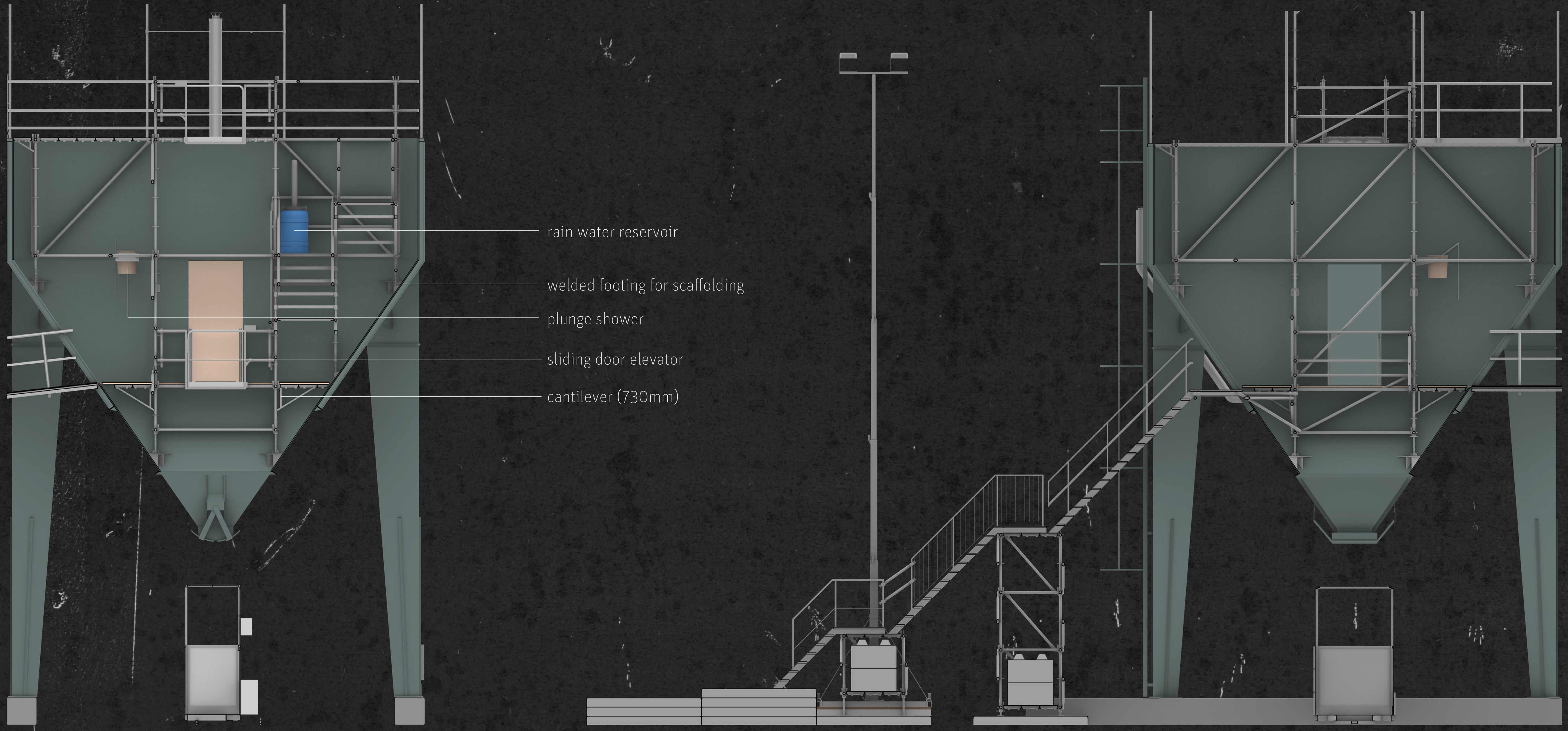


west section


elevator fixed to scaffolding
welded metal foot
elevator fixed to scaffolding
stairs supported by scaffolding (cantilever)
metal stairs found on site
welded metal foot
weighted tower scaffold

south section

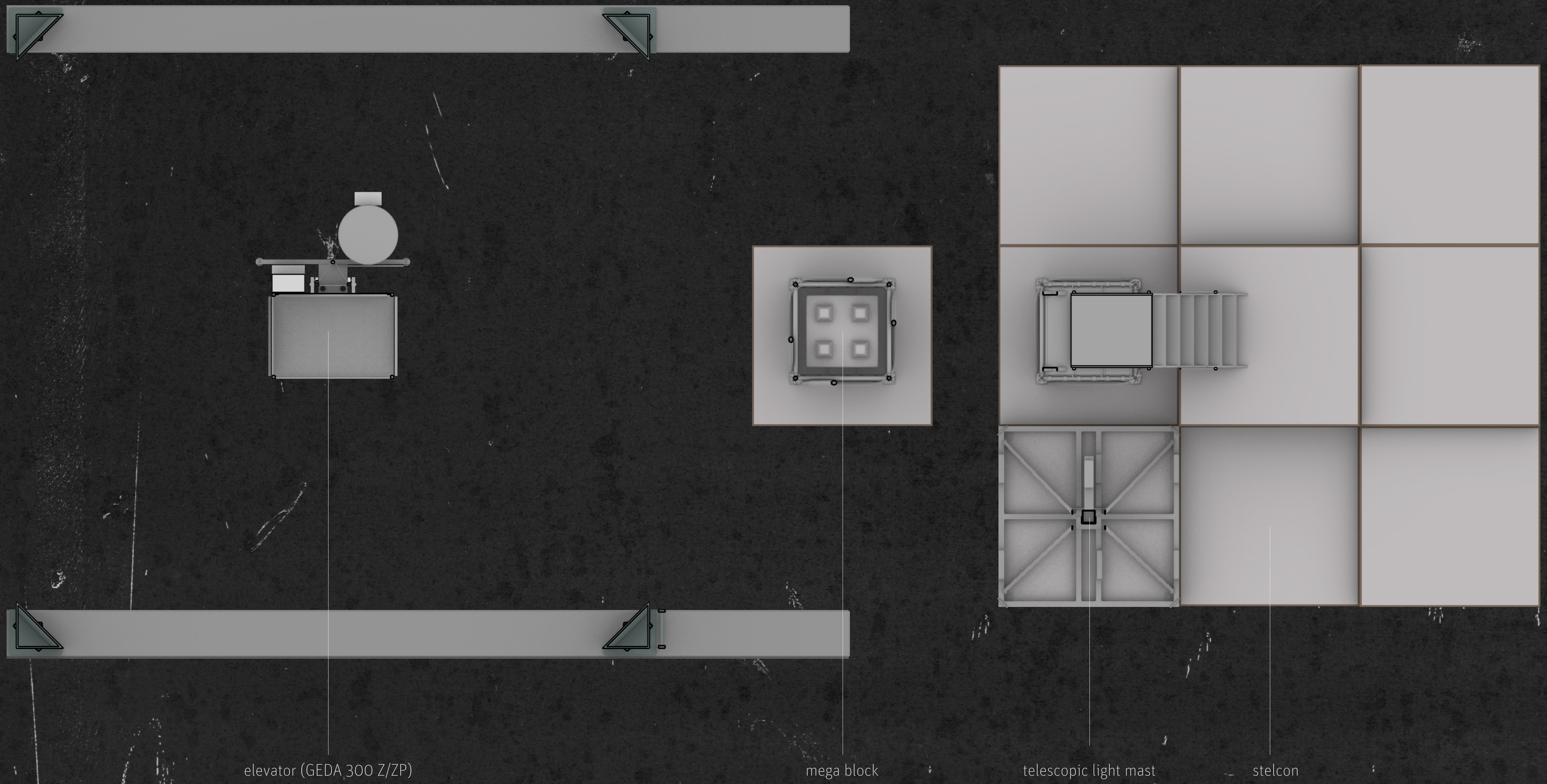
design - silo spa: circulation


rain water reservoir
welded footing for scaffolding
plunge shower
sliding door elevator
cantilever (730mm)

east section

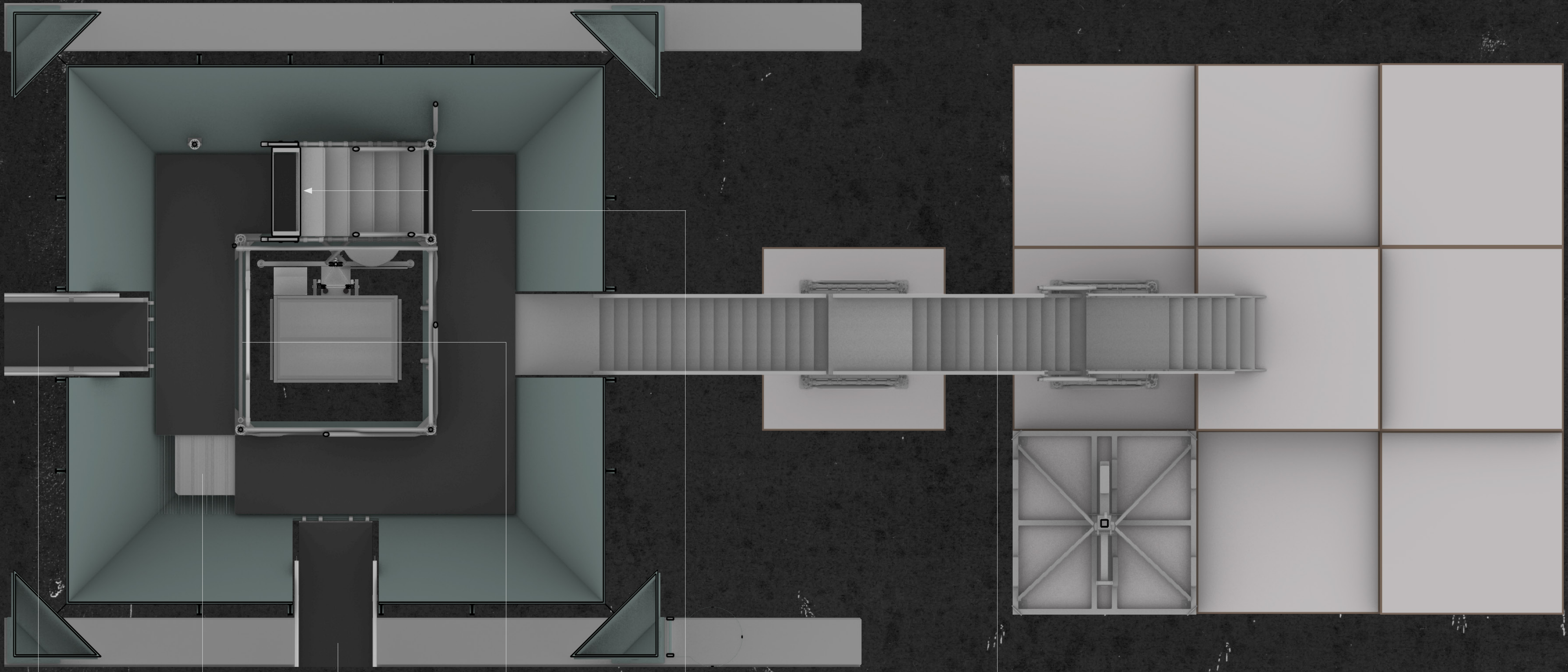
north section

design - silo spa: circulation


elevator (GEDA 300 Z/ZP)
mega block
telescopic light mast
stelcon

plan ground floor

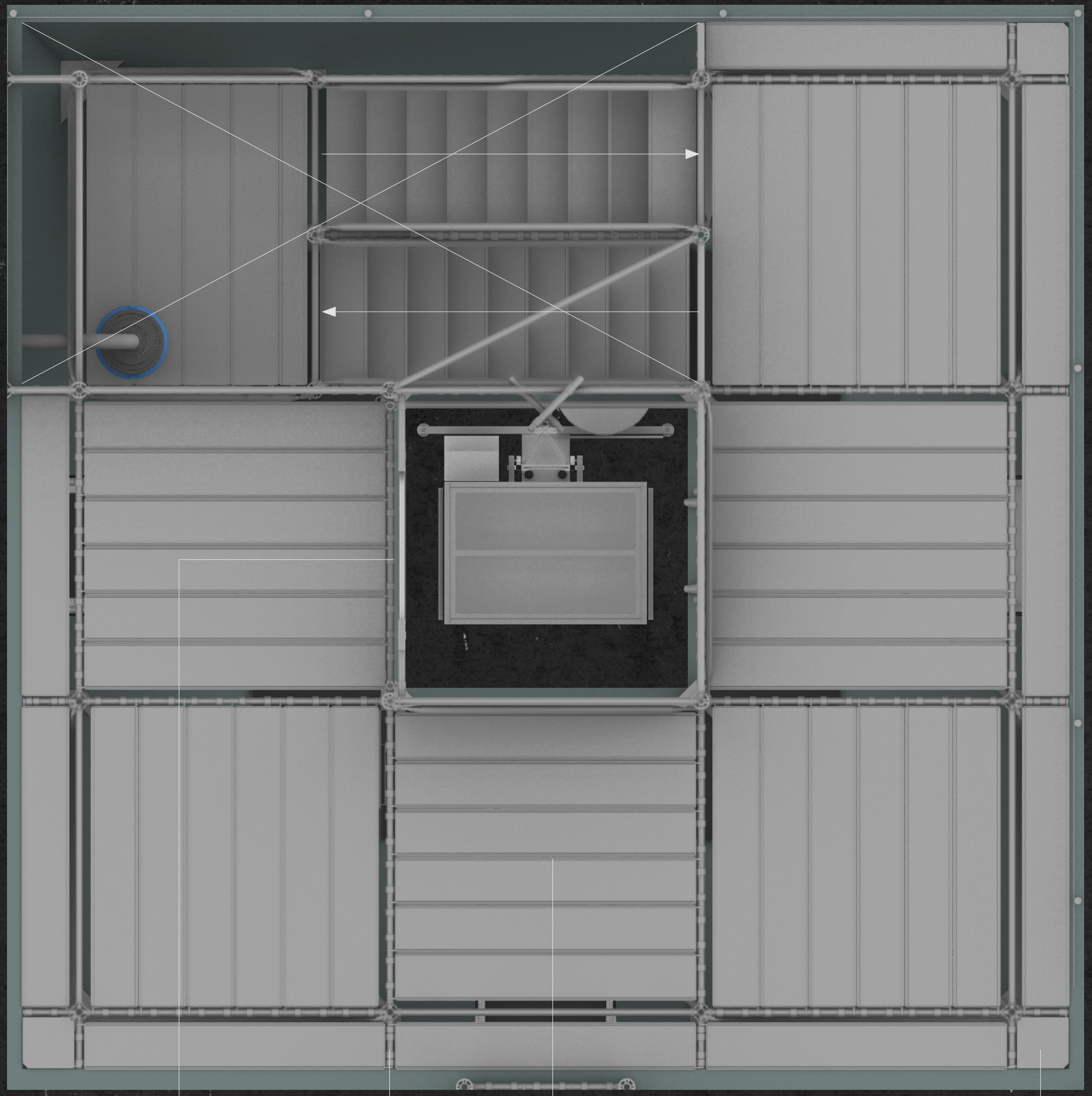
design - silo spa: circulation



walkway
800mm wide
floor grating on
cantilever corner
730mm x 730mm
walkway
800mm wide
sliding door levator
non-slip mat
metal stairs found on site

plan first floor

design - silo spa: circulation



sliding door elevator

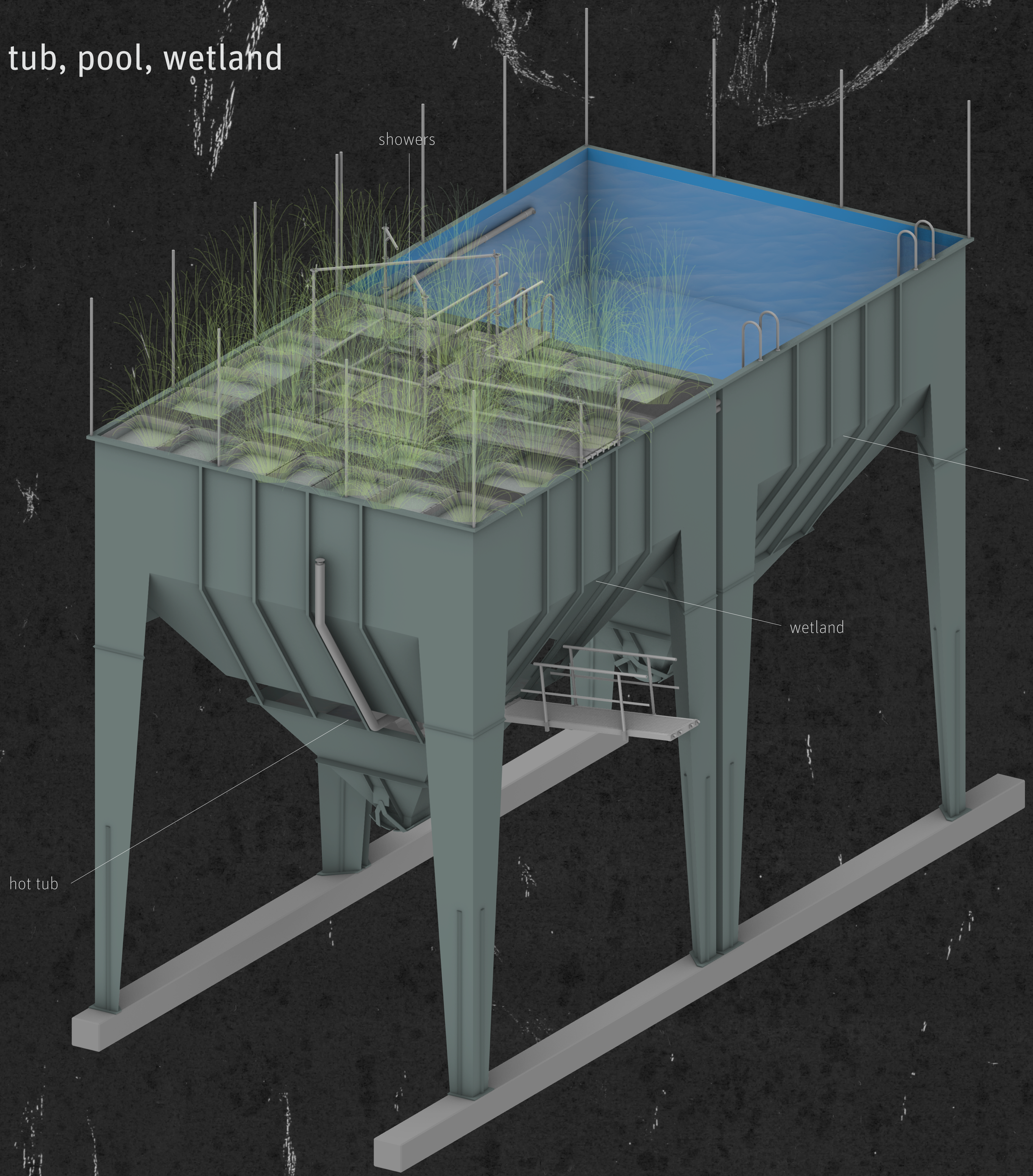
cantilever
390mm

perforated metal scaffold flooring
2070mm x 320mm

corner console
390mm x 390mm

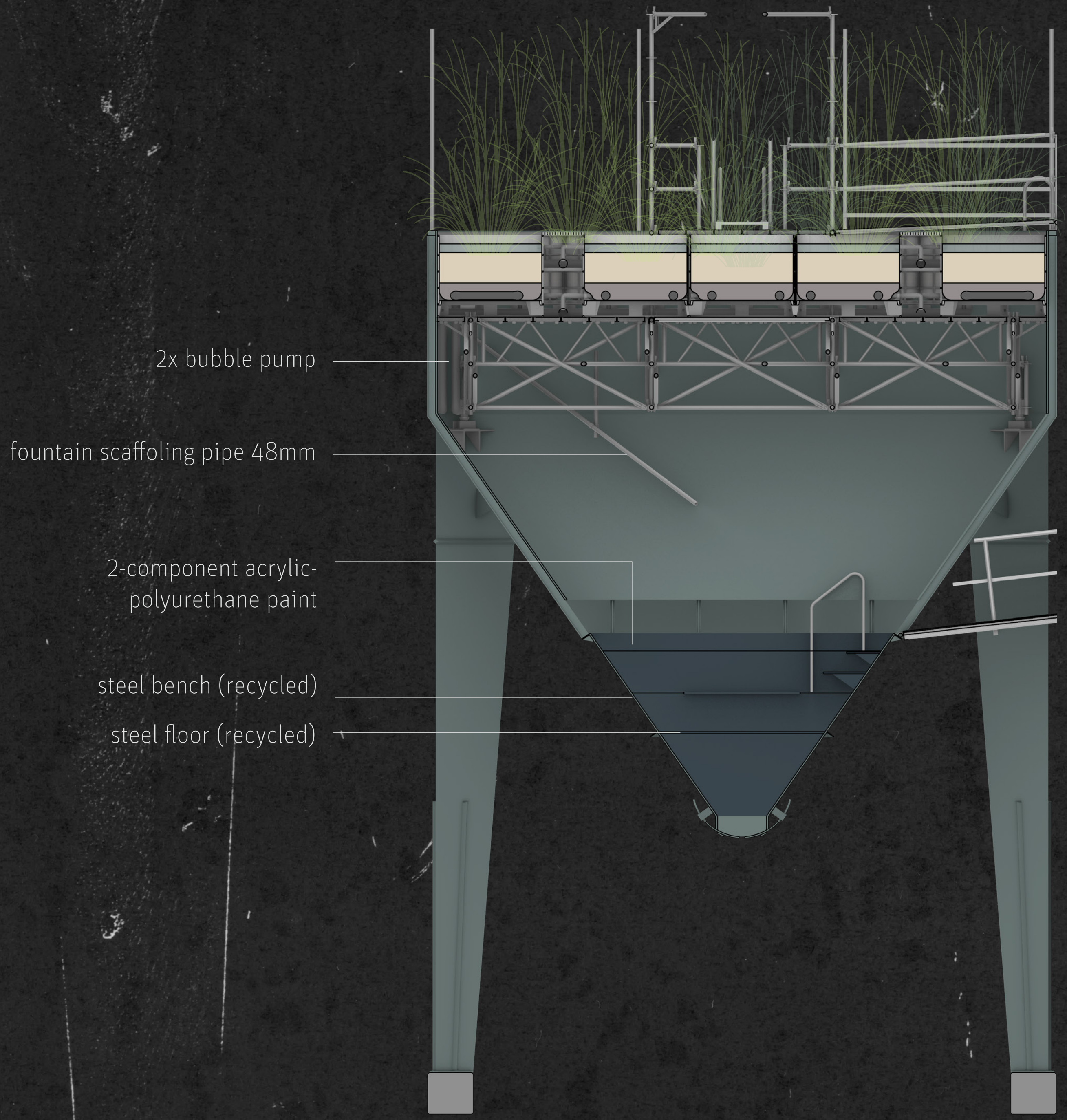
plan second floor

design - silo spa: hot tub, pool, wetland

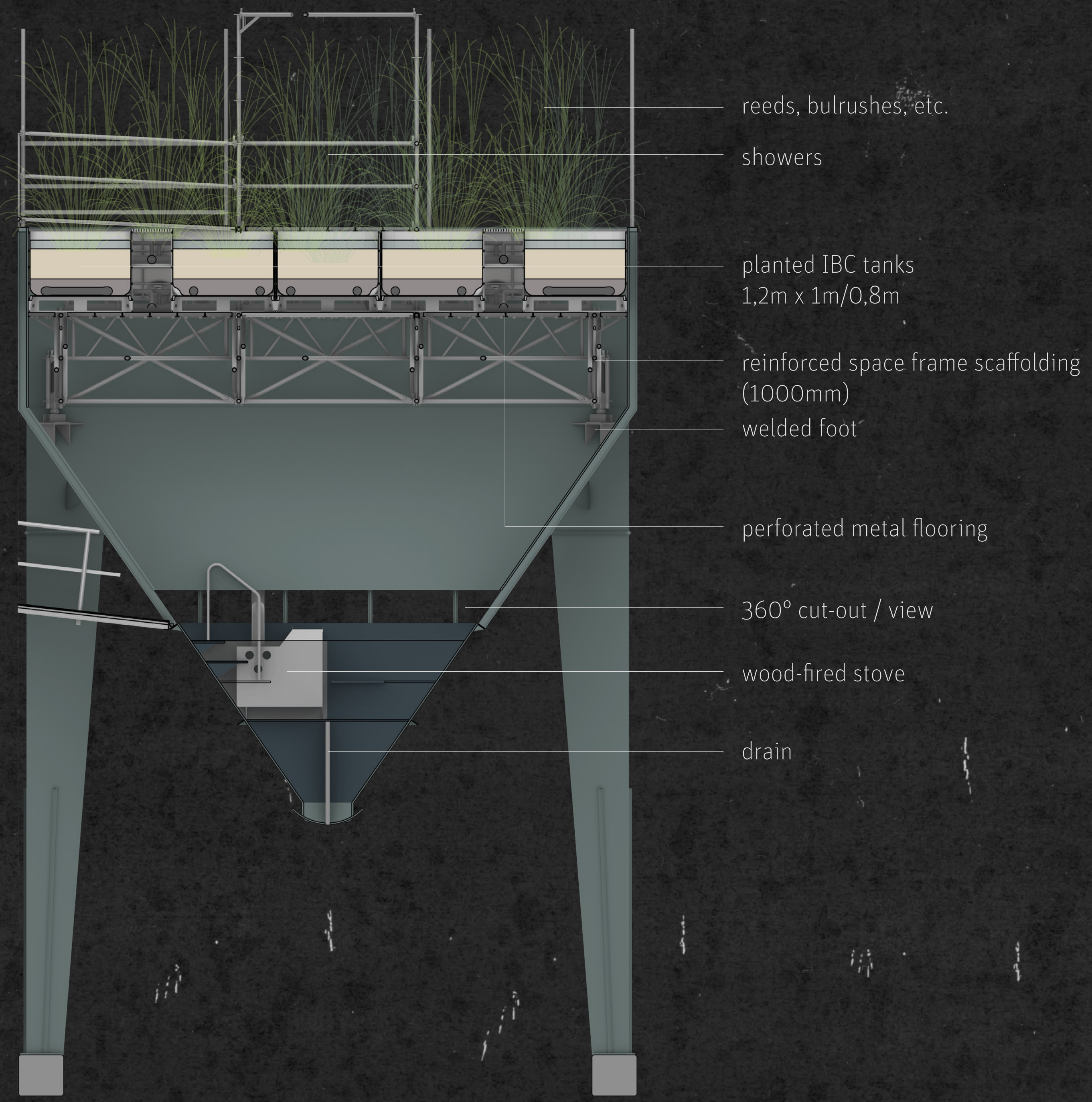

showers
pool
wetland
hot tub

axonometry silo 2 & 3

design - silo spa: hot tub, pool, wetland

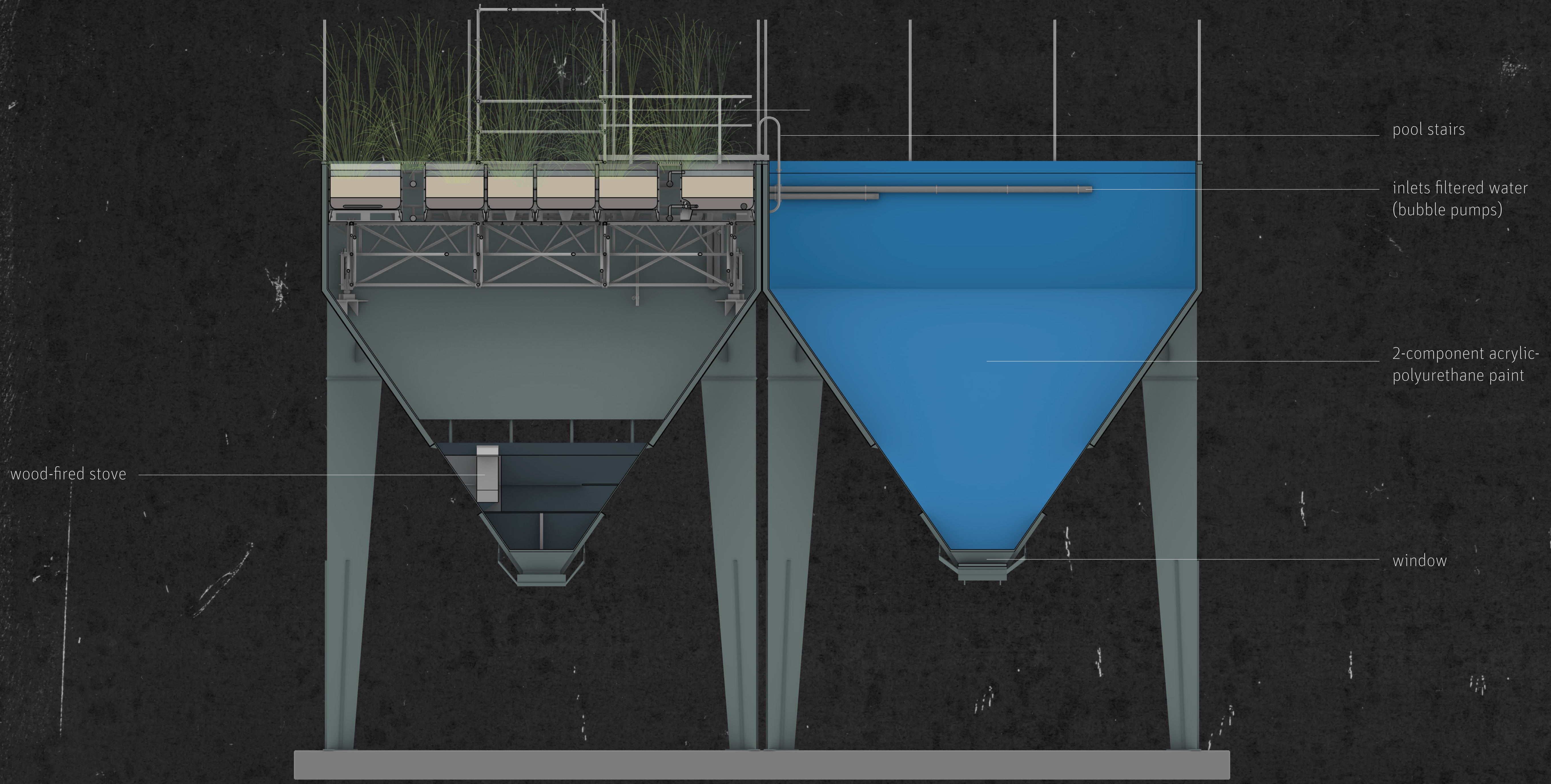

2x bubble pump
fountain scaffoling pipe 48mm
2-component acrylic-polyurethane paint
steel bench (recycled)
steel floor (recycled)

east section


reeds, bulrushes, etc.
showers
planted IBC tanks 1,2m x 1m/0,8m
reinforced space frame scaffolding (1000mm)
welded foot
perforated metal flooring
360° cut-out / view
wood-fired stove
drain

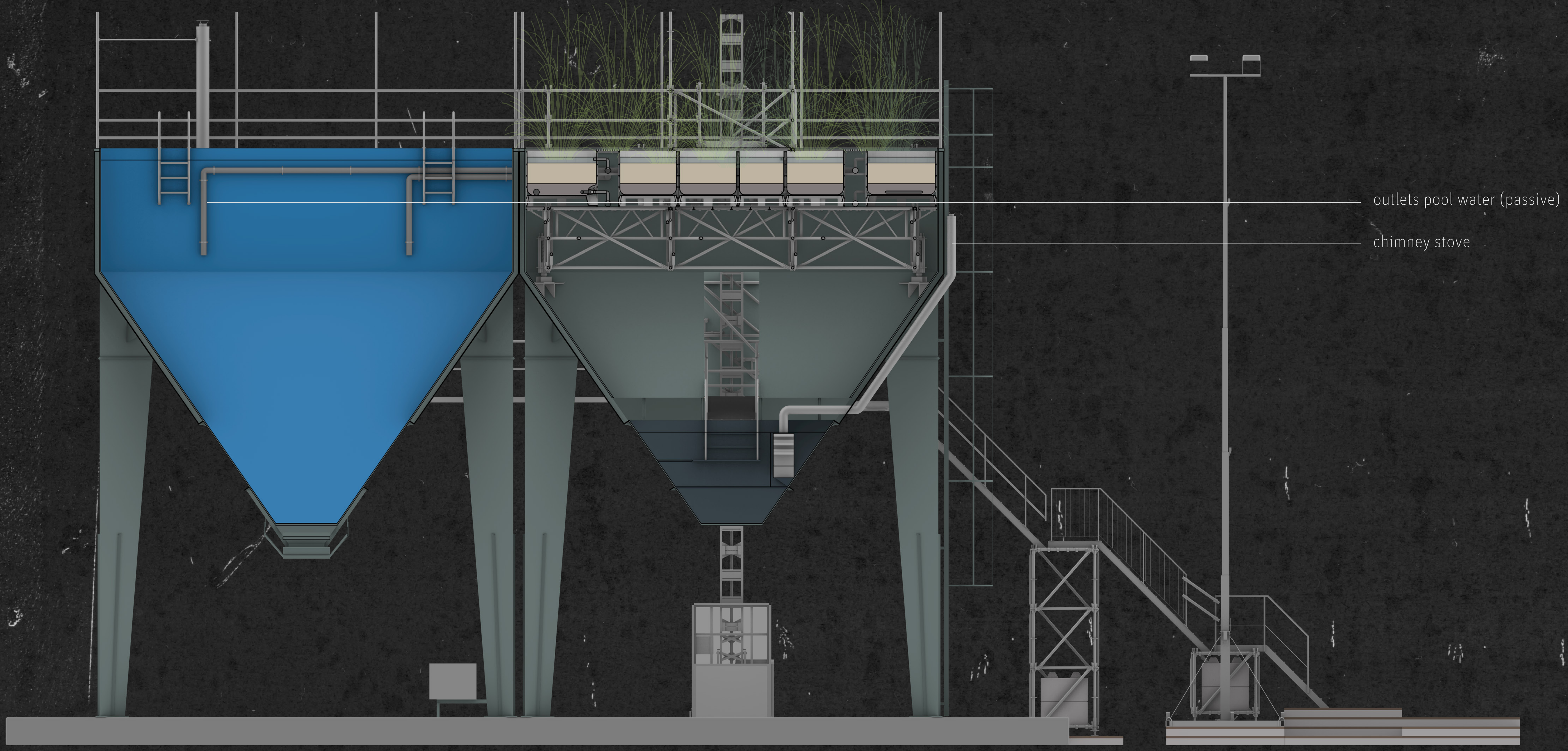
west section

design - silo spa: hot tub, pool, wetland


pool stairs
inlets filtered water
(bubble pumps)
2-component acrylic-
polyurethane paint
wood-fired stove
window

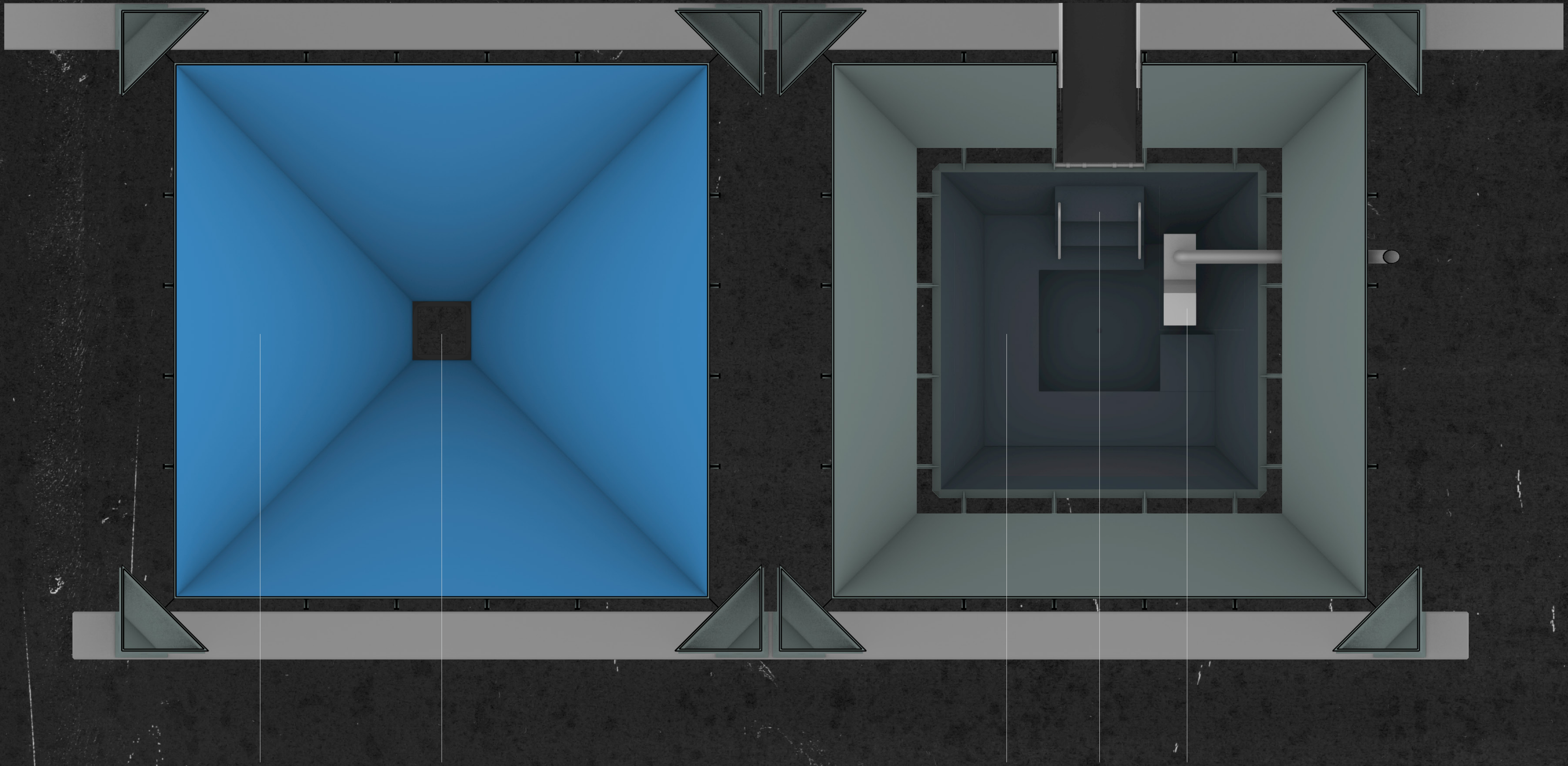
north section

design - silo spa: hot tub, pool, wetland


outlets pool water (passive)
chimney stove

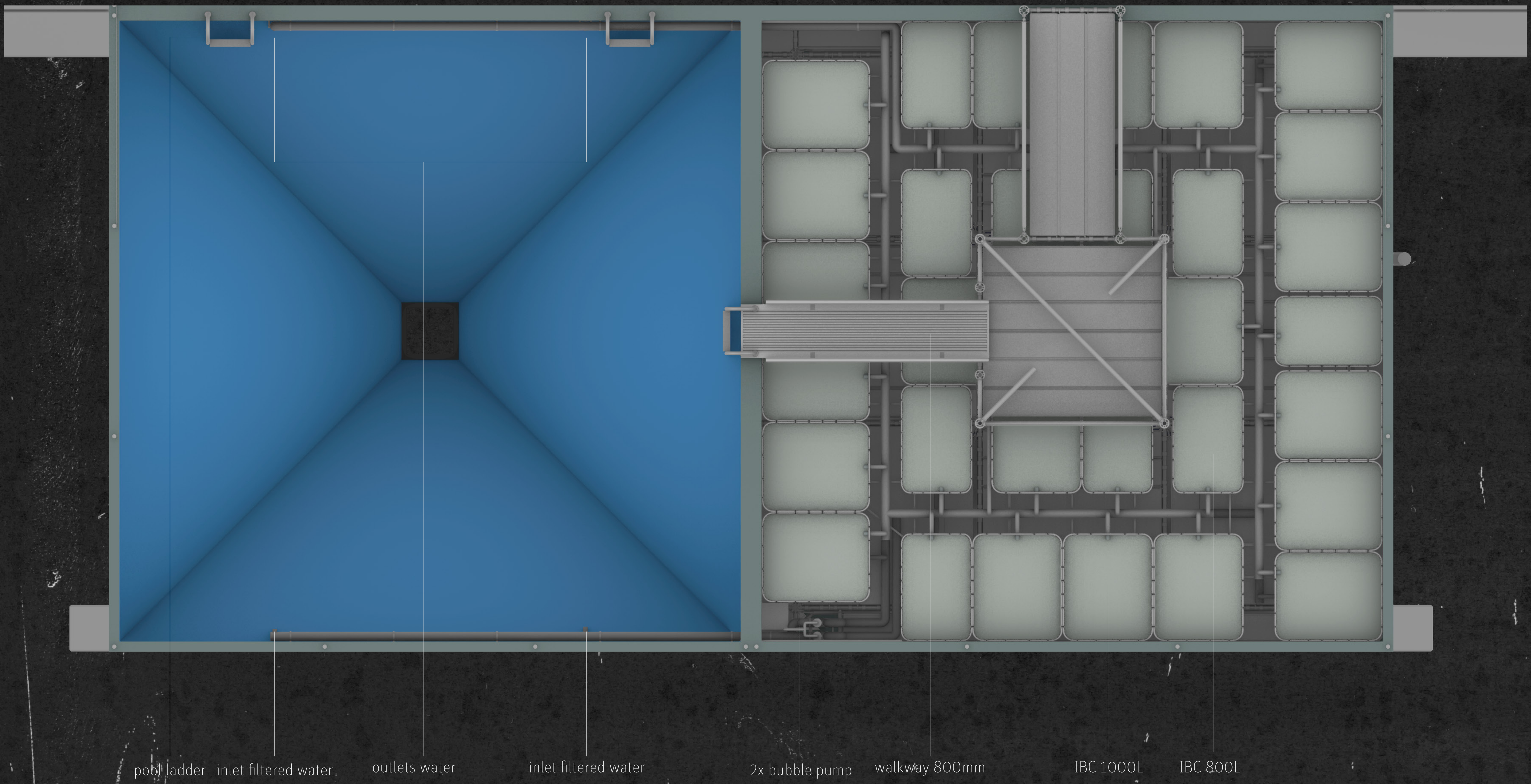
south section

design - silo spa: hot tub, pool, wetland


2-component acrylic-
polyurethane paint
window
steel bench
steel stairs
wood-fired stove

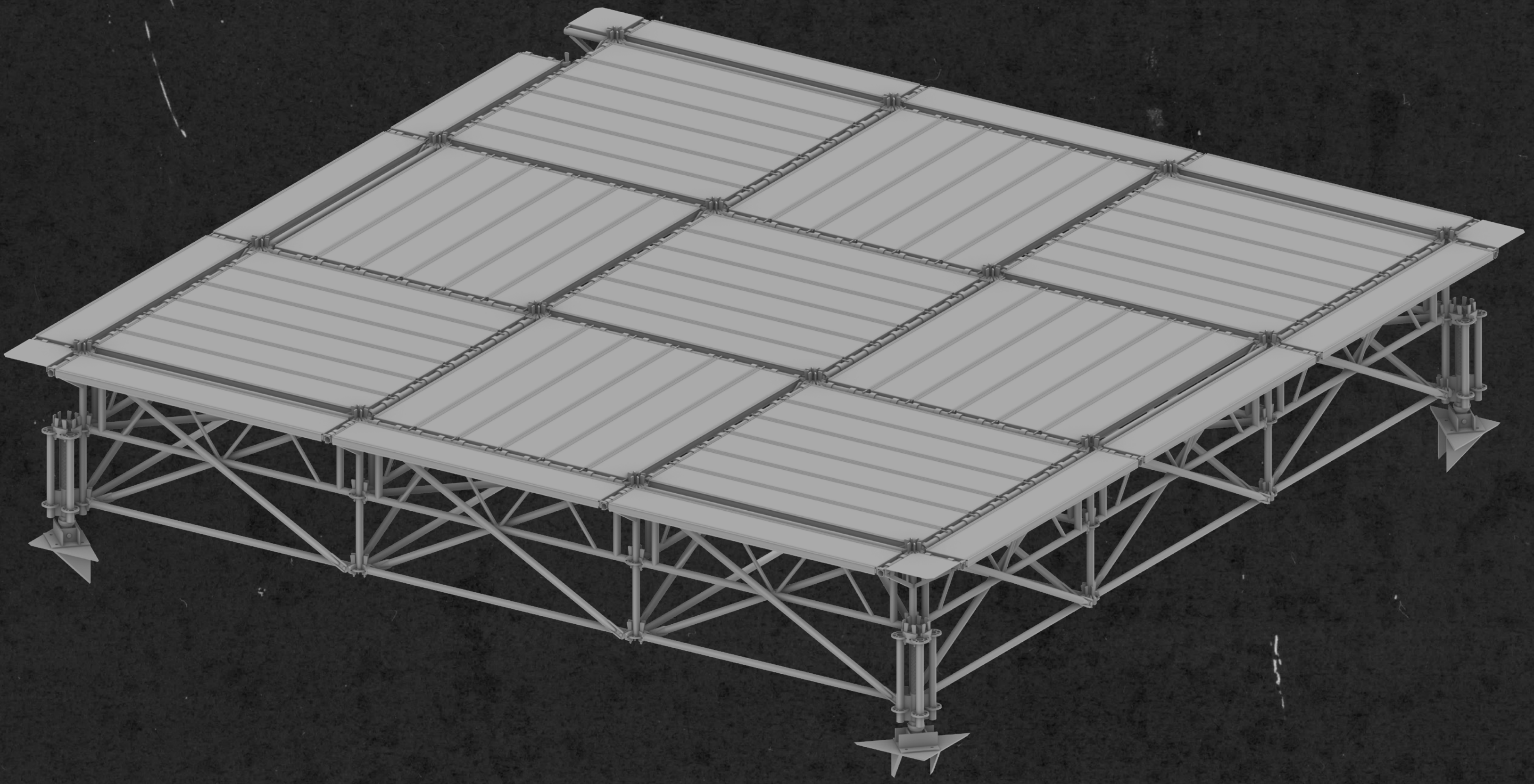
plan first floor

design - silo spa: hot tub, pool, wetland


pool ladder
inlet filtered water
outlets water
inlet filtered water
2x bubble pump
walkway 800mm
IBC 1000L
IBC 800L

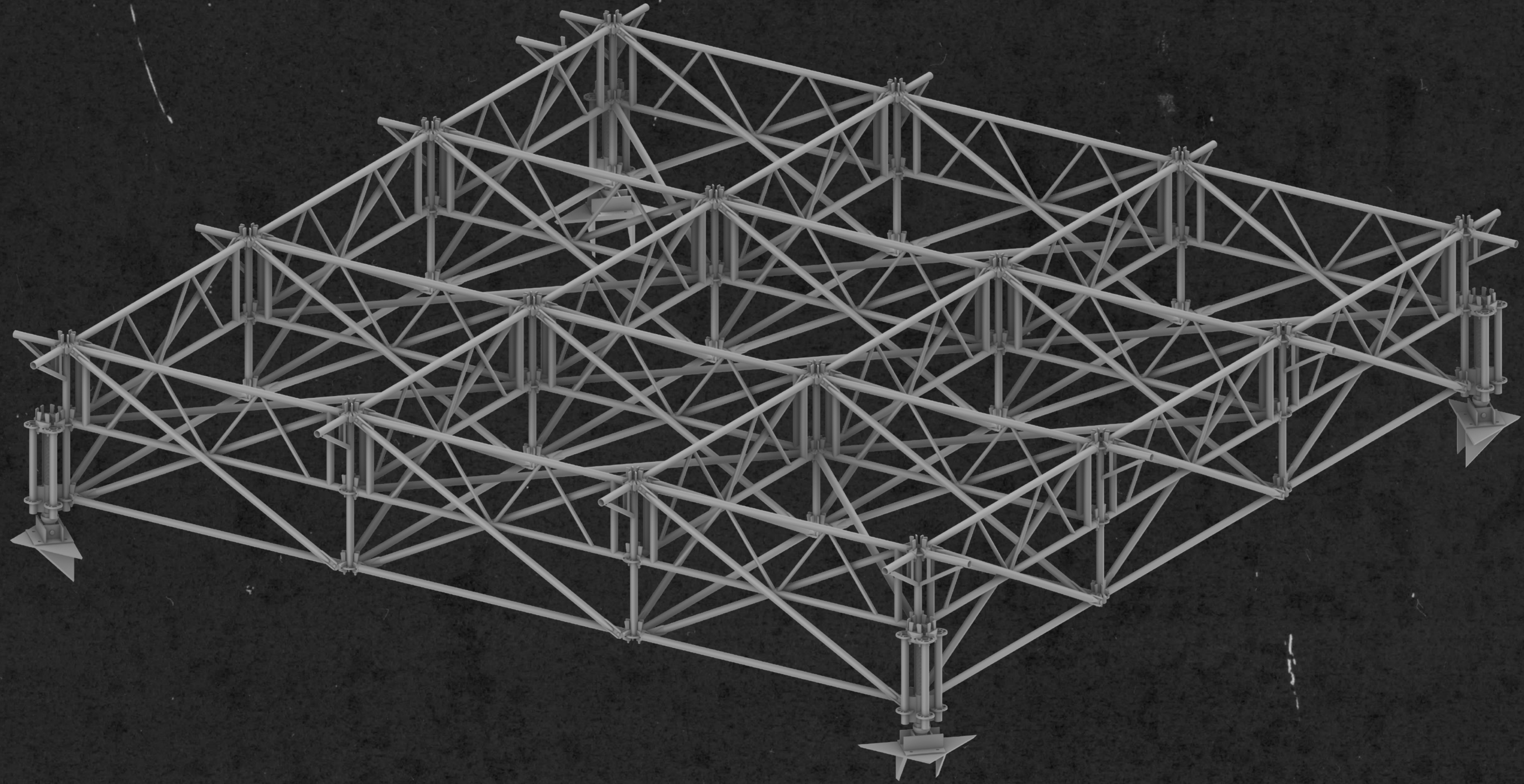
plan second floor

design - silo spa: hot tub, pool, wetland



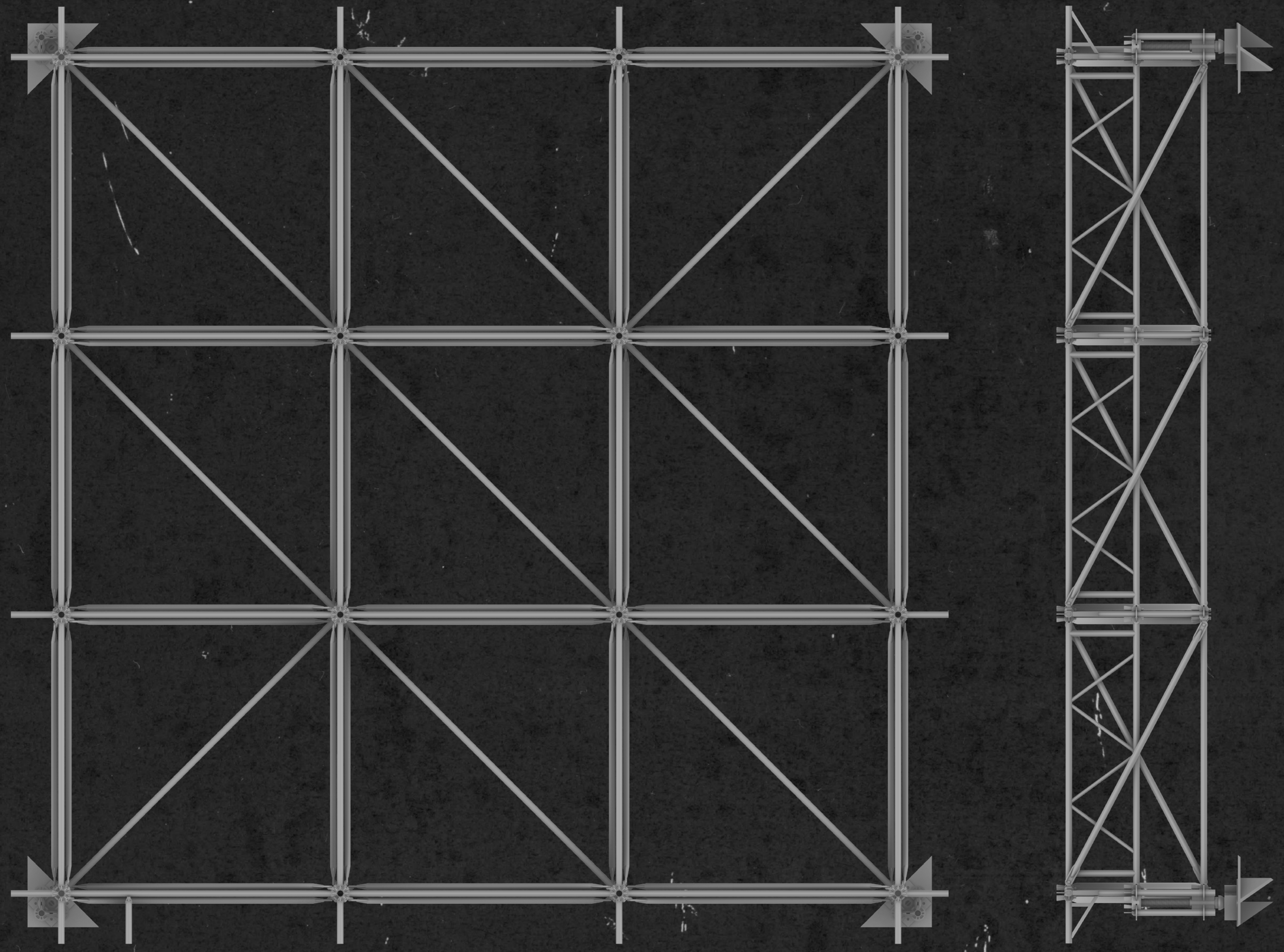
axonometry

design - silo spa: hot tub, pool, wetland



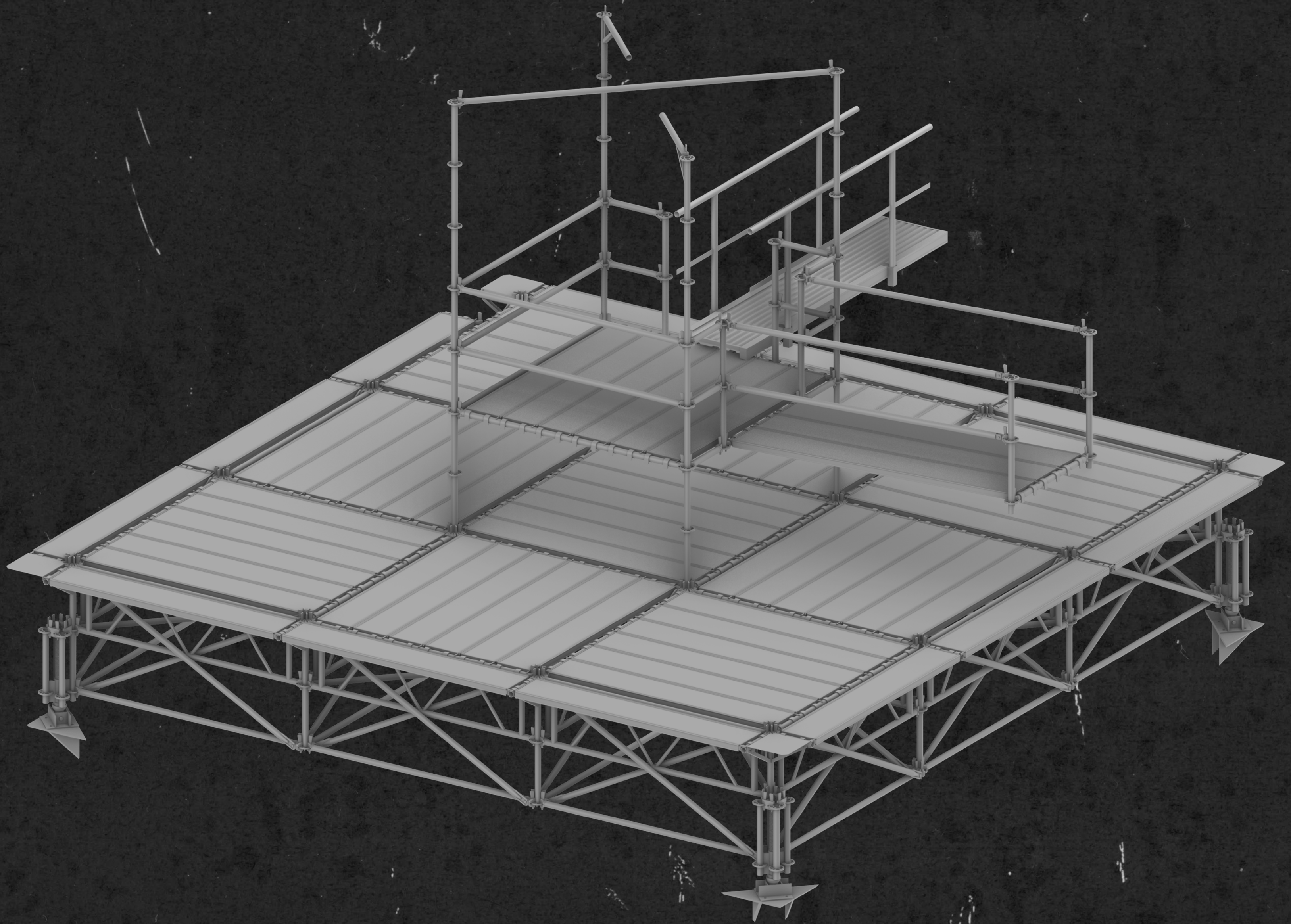
axonometry

design - silo spa: hot tub, pool, wetland



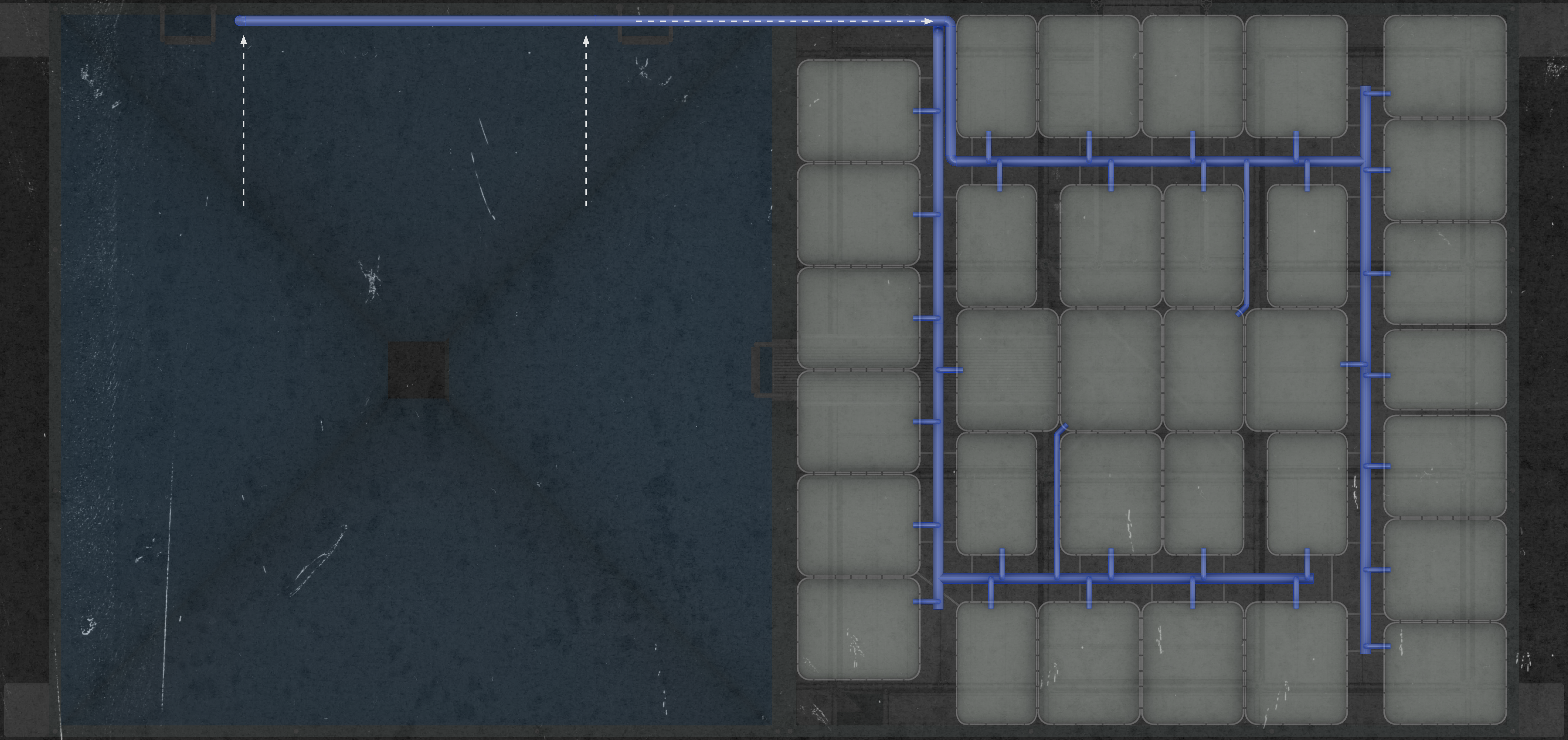
plan

design - silo spa: hot tub, pool, wetland



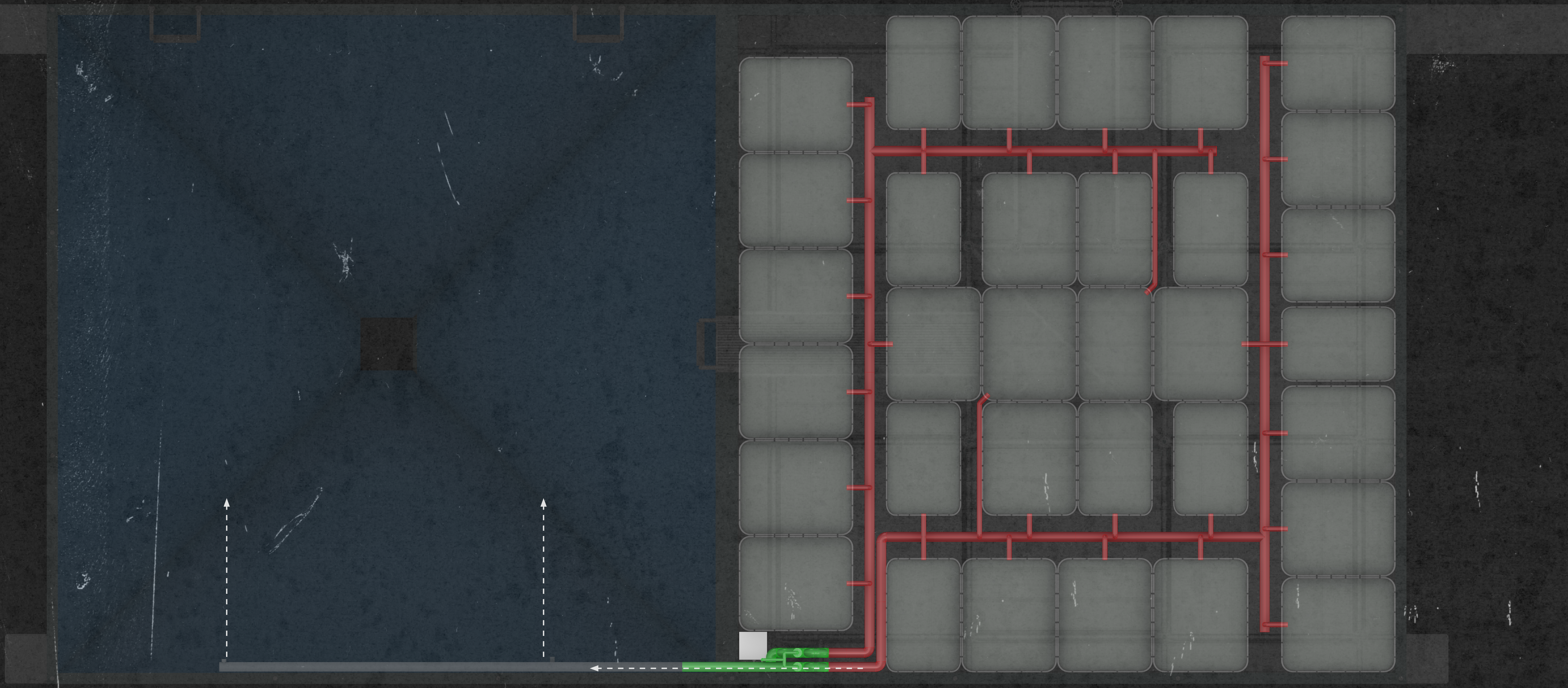
axonometry

design - silo spa: hot tub, pool, wetland



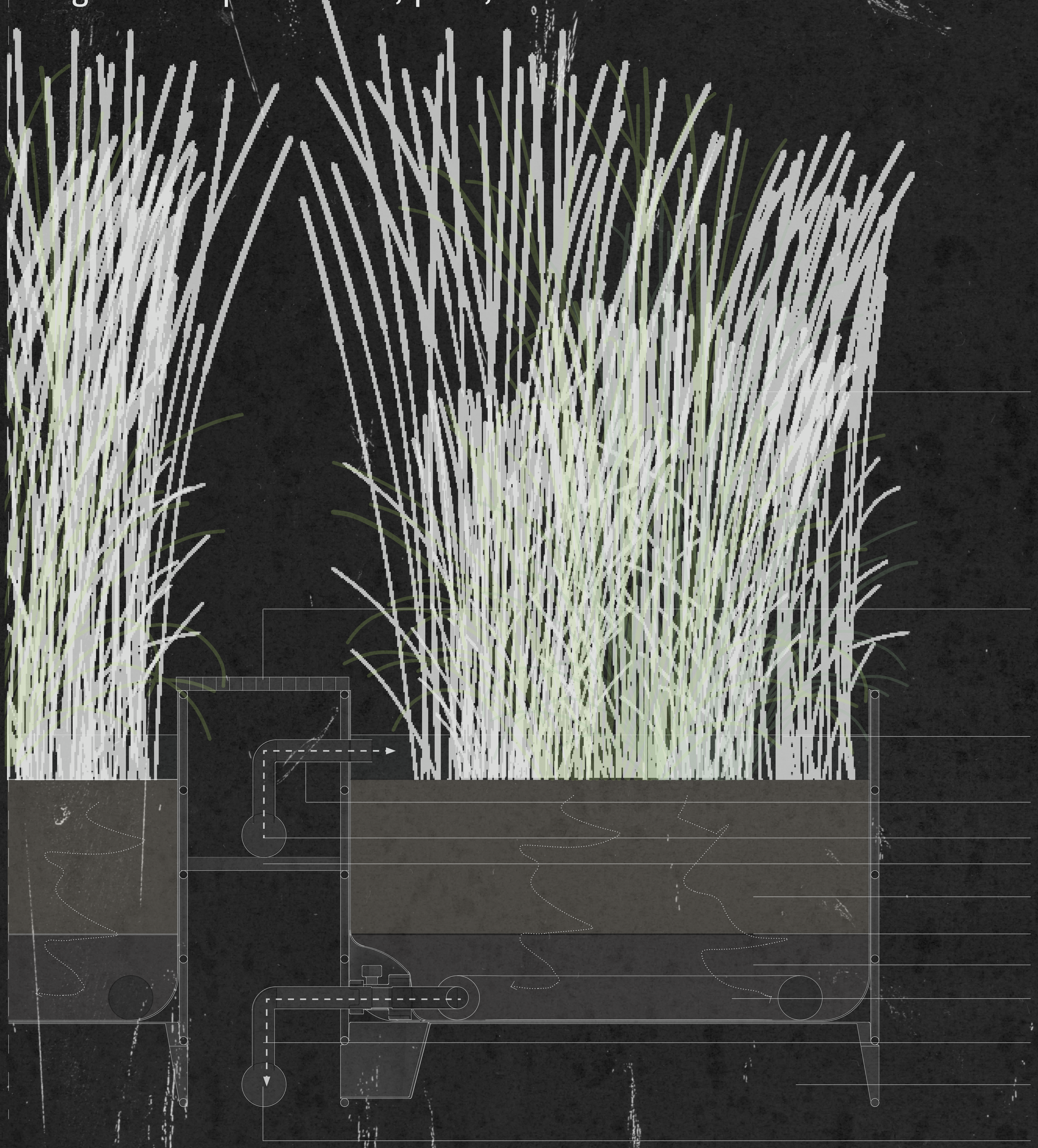
plan

design - silo spa: hot tub, pool, wetland



plan

design - silo spa: hot tub, pool, wetland



reeds, bulrushes and similar wind-resistent native wetland flora

steel grating floor 30mm x 350mm

water level above ingoing pipe

ingoing pipe (50mm)

ingoing manifold (100mm)

metal support profile

sand

geotextile

gravel

slotted drain coil

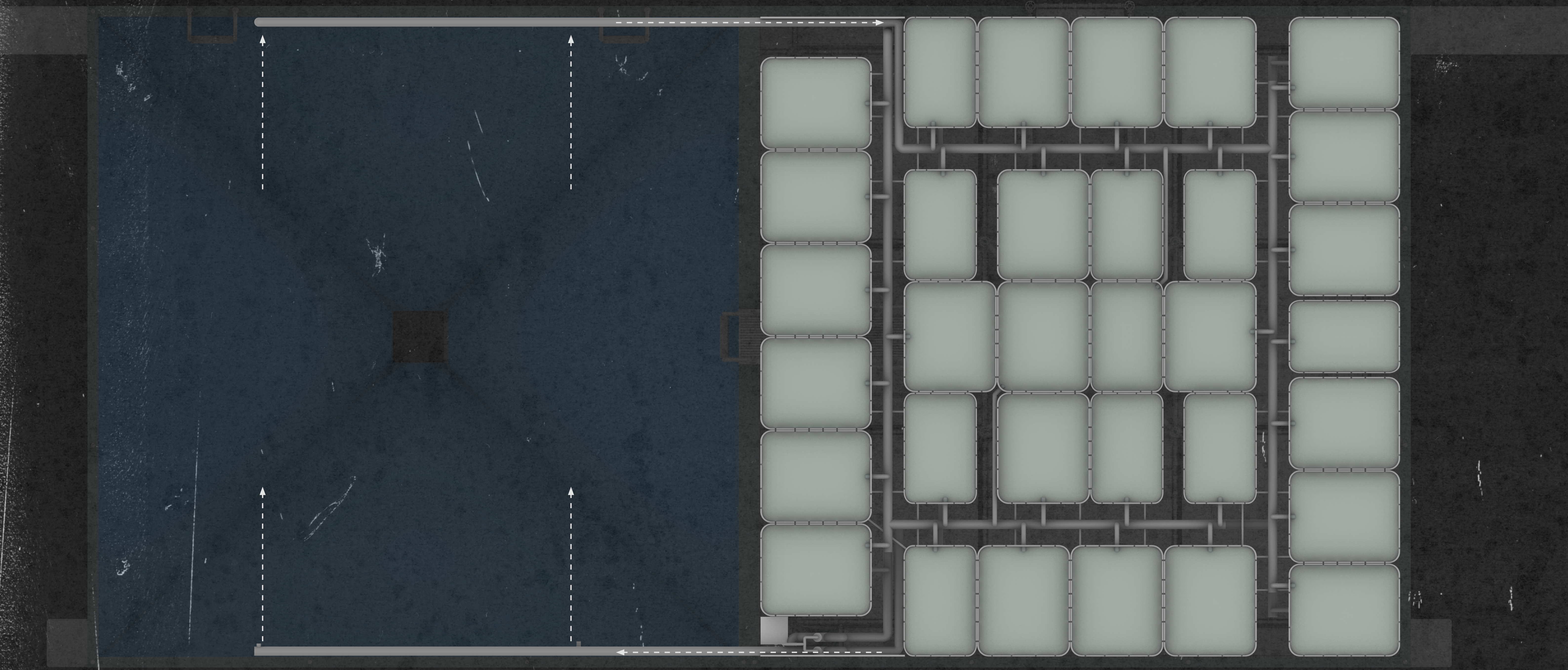
outgoing pipe (50mm)

metal framed IBC tank 1000/800L)

outgoing manifold (100mm)

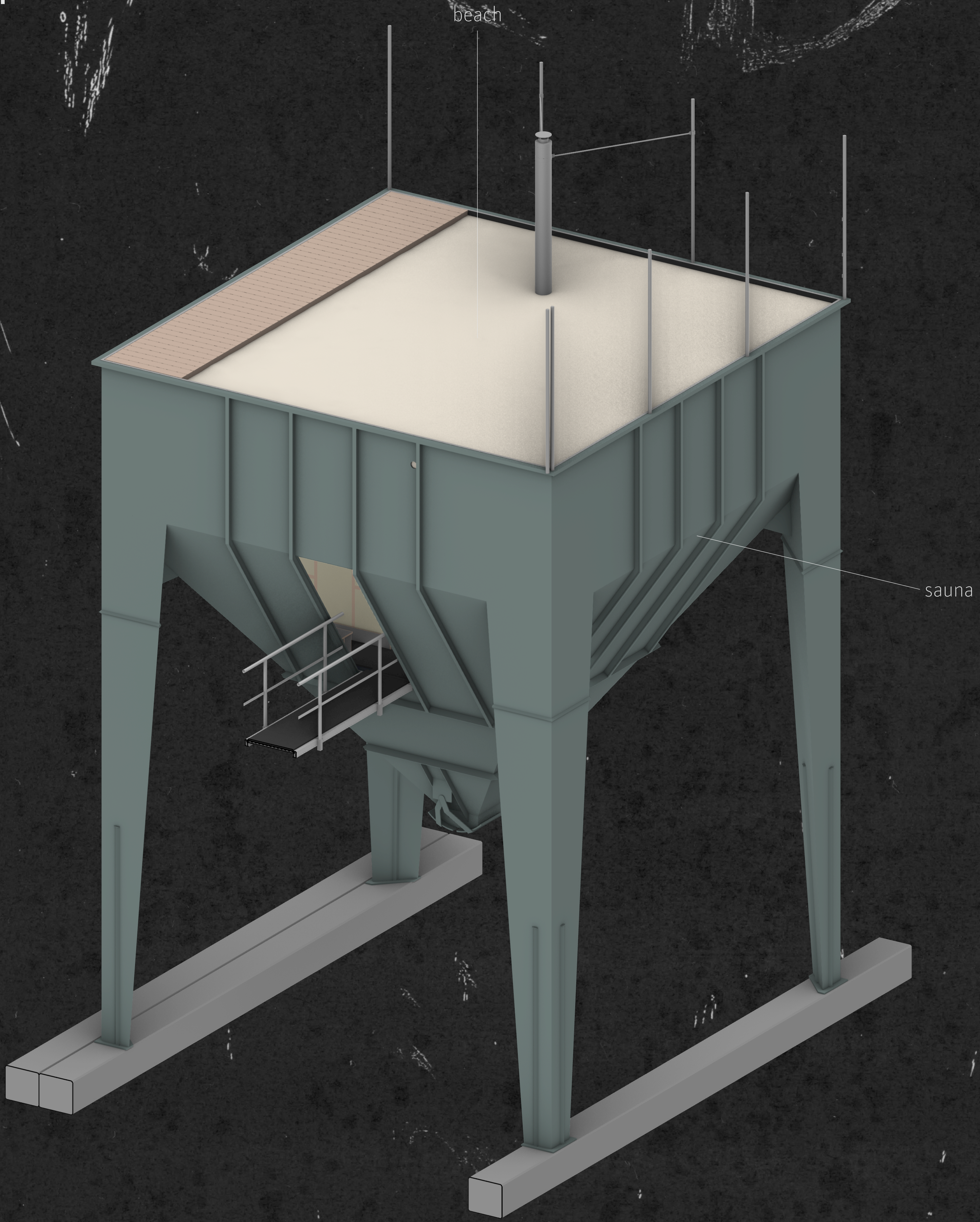
wetland section 1 : 10

design - silo spa: hot tub, pool, wetland



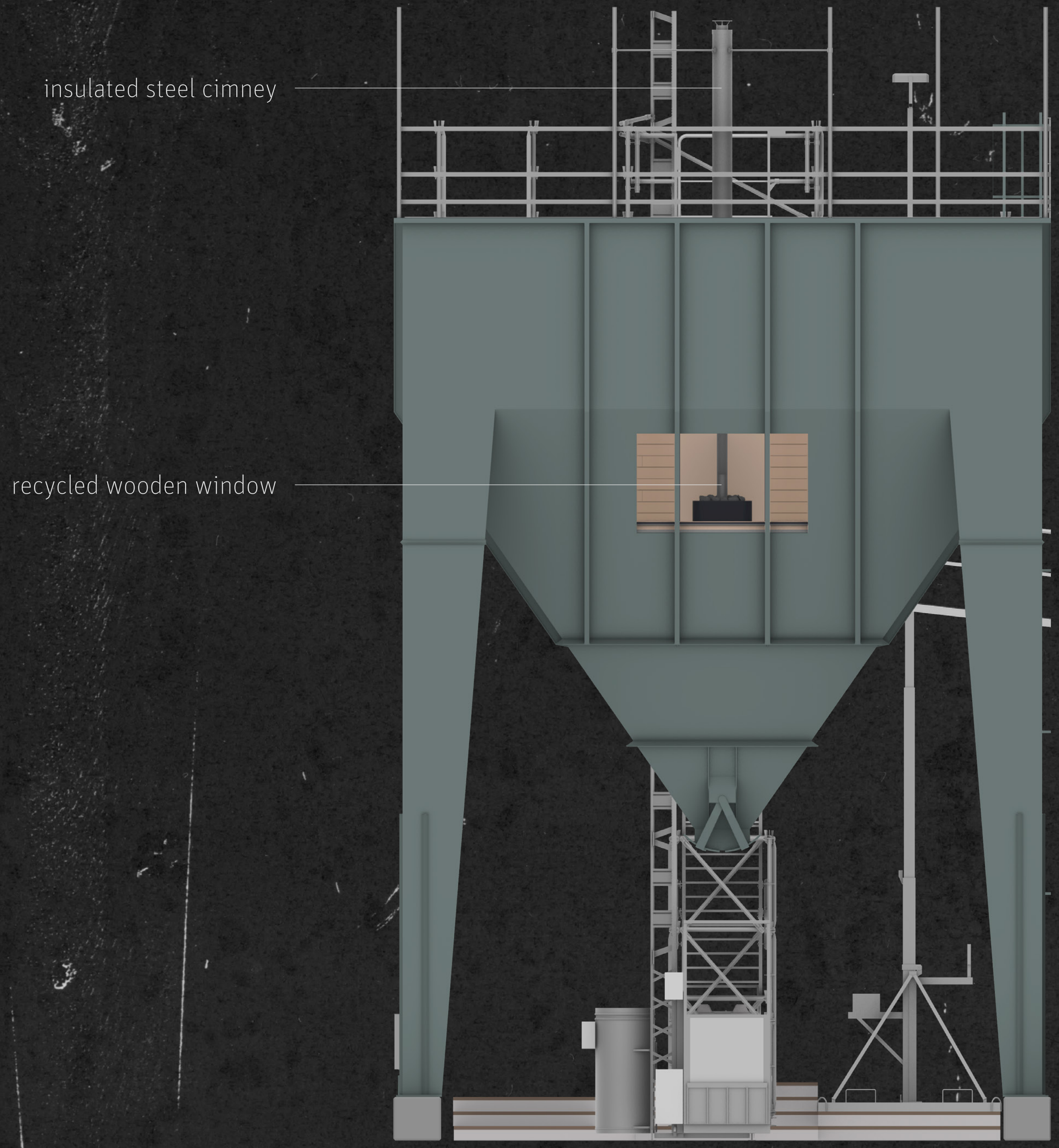
plan

design - silo spa: sauna, beach

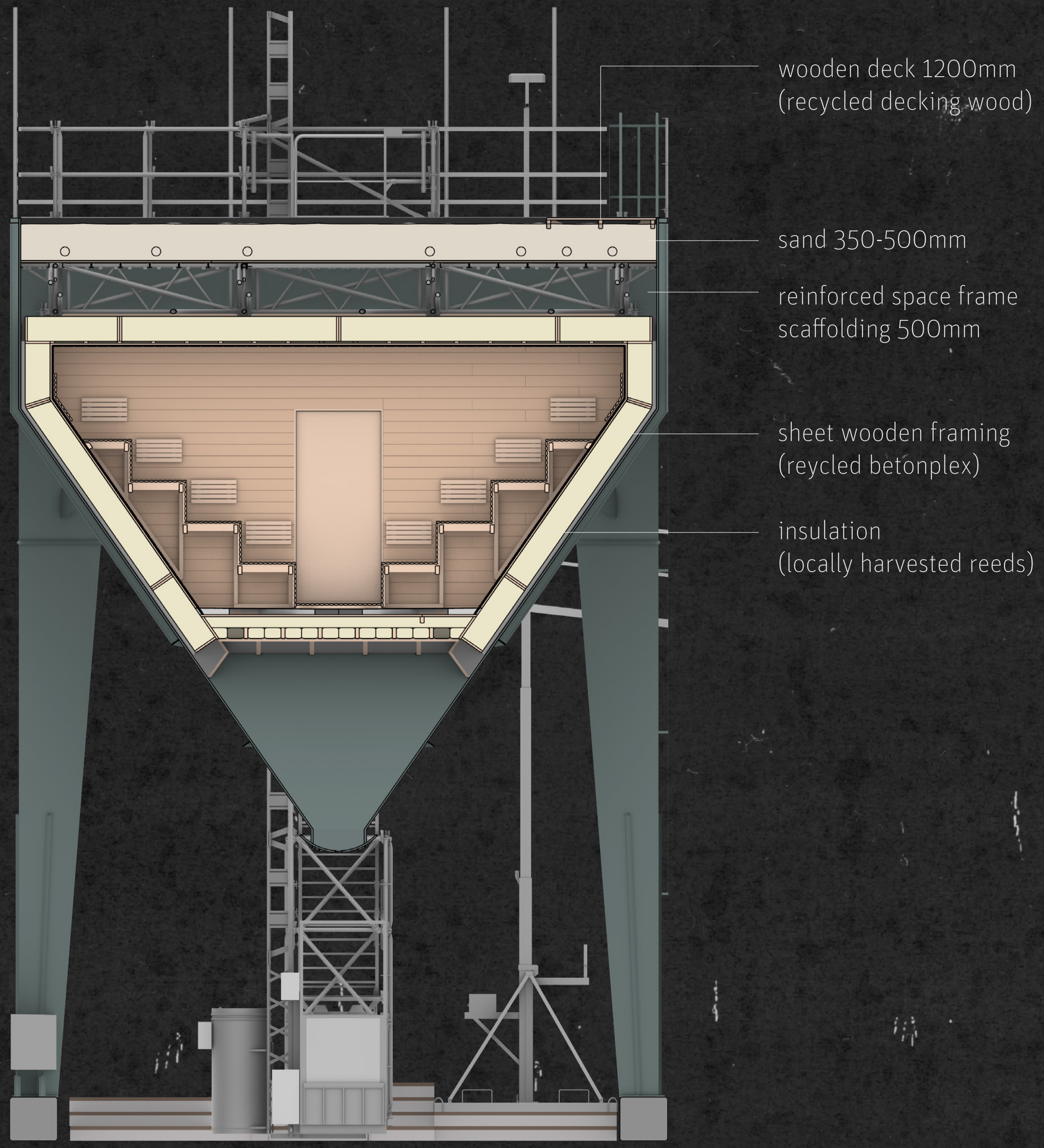

beach
sauna

axonometry silo 2

design - silo spa: sauna, beach

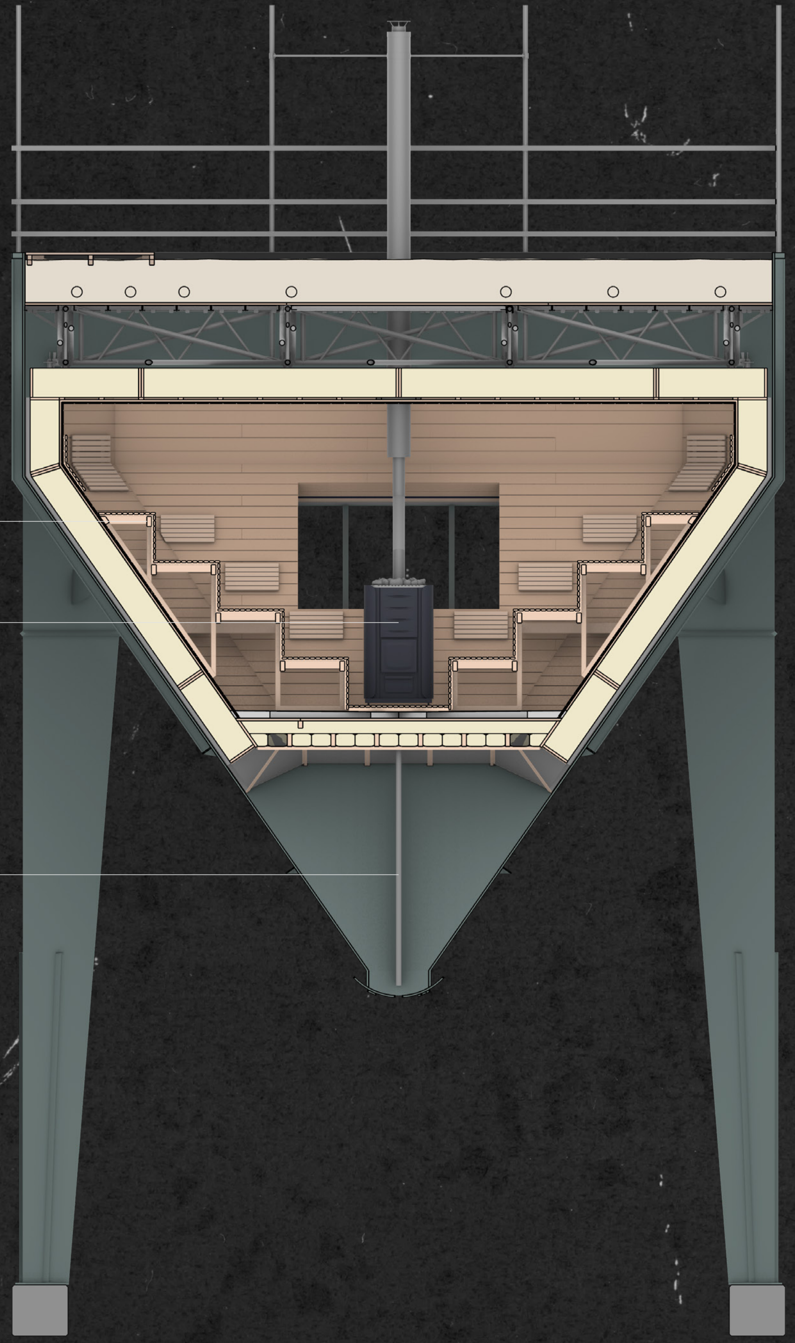

insulated steel cimney
recycled wooden window

elevation west

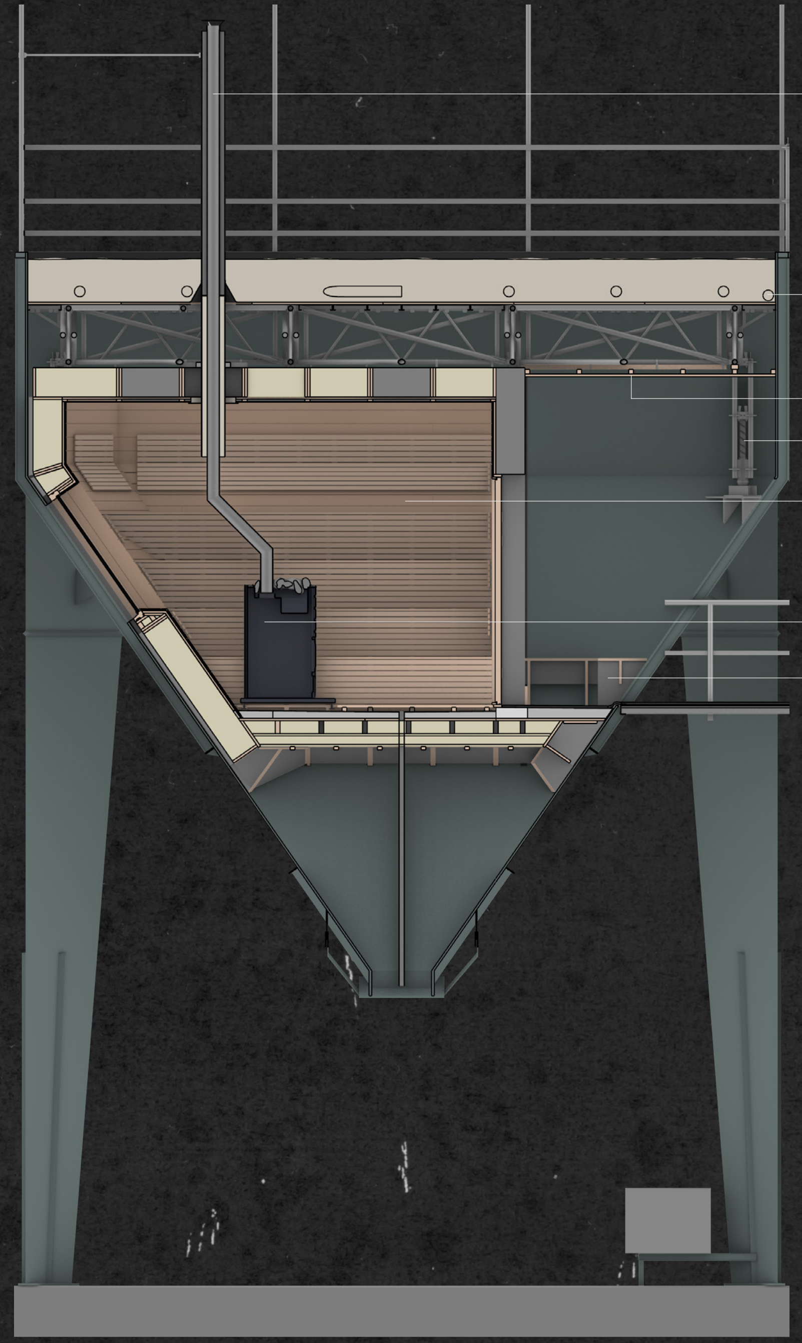

wooden deck 1200mm
(recycled decking wood)
sand 350-500mm
reinforced space frame
scaffolding 500mm
sheet wooden framing
(reycled betonplex)
insulation
(locally harvested reeds)

section west

design - silo spa: sauna, beach

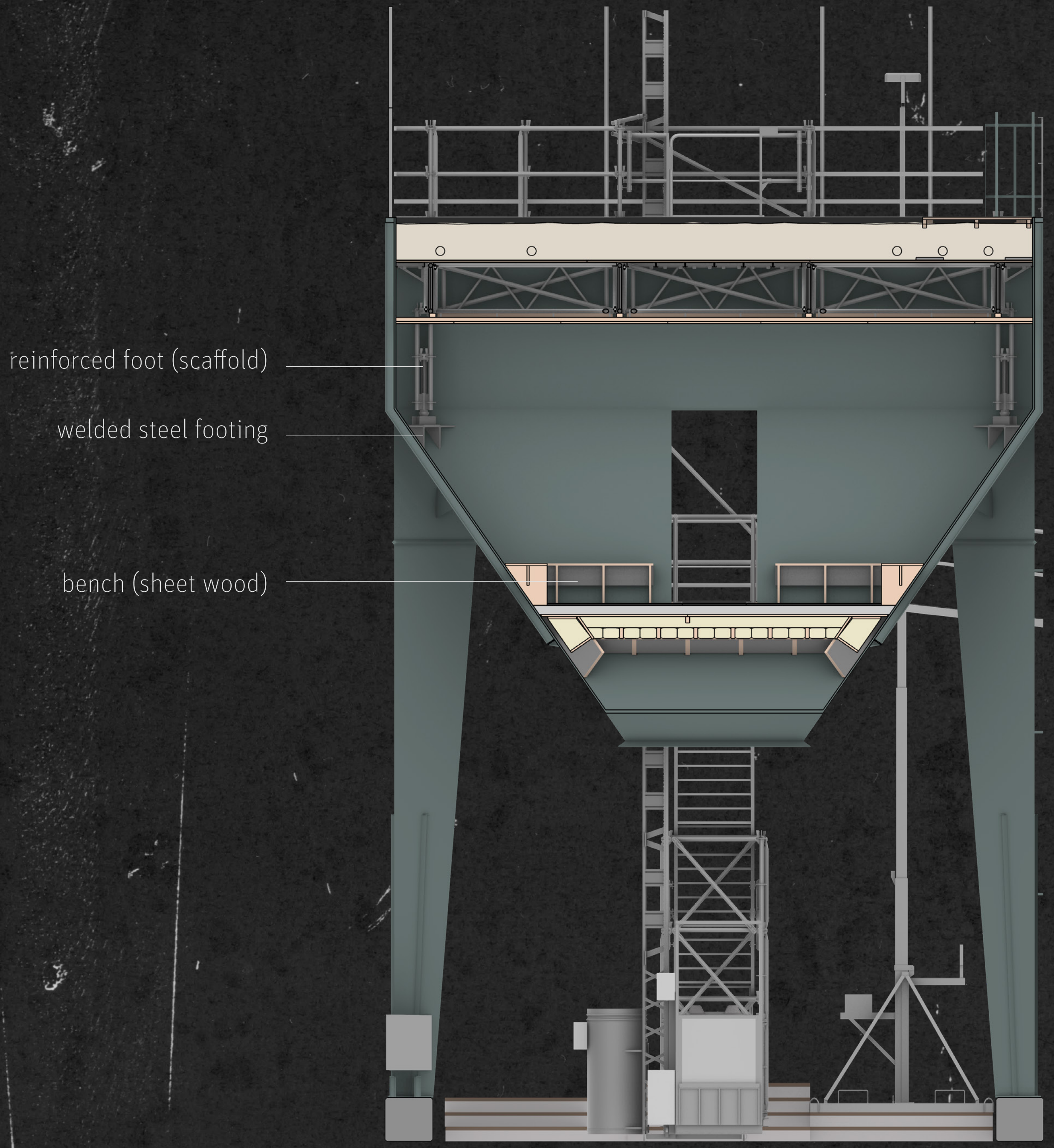

bench framing
(found construction wood)
wood fired sauna (50m3)
drain

east section

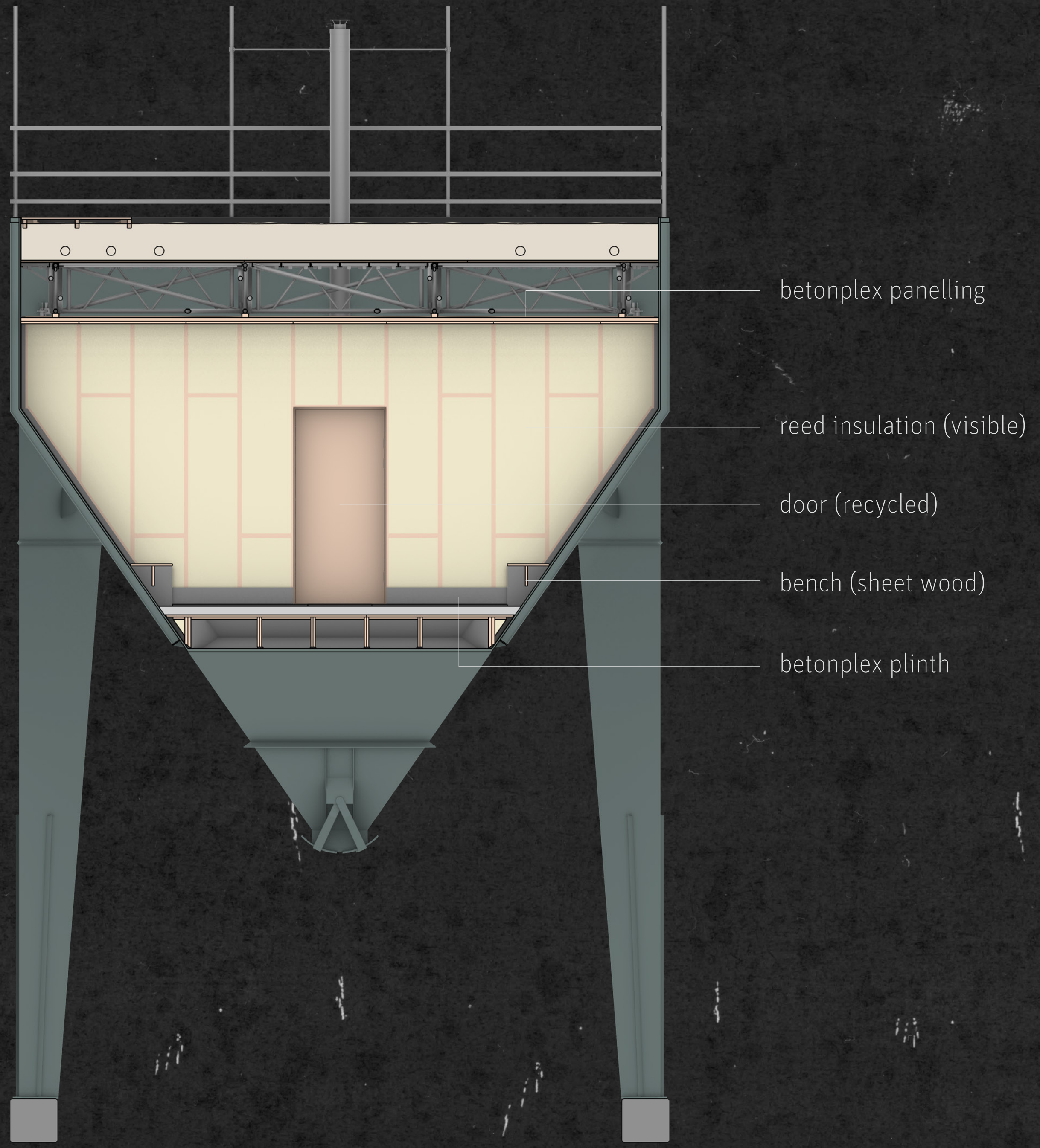

insulated steel chimney
coconut fiber drainage
betonplex panelling
reinforced footing (scaffold)
wooden siding
(local alder wood)
wood fired sauna (50m3)
bench (sheet wood)

south section

design - silo spa: sauna, beach

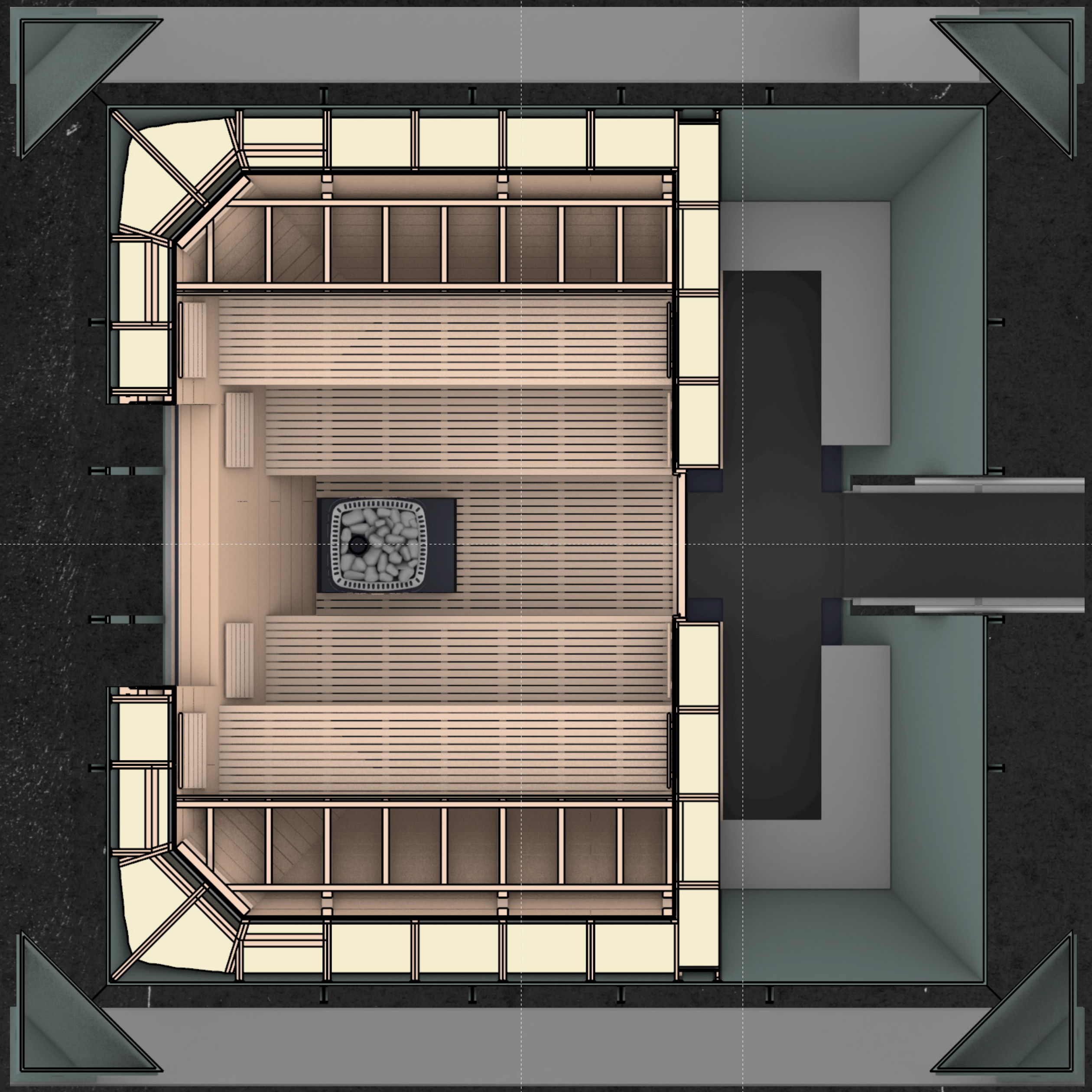

reinforced foot (scaffold)
welded steel footing
bench (sheet wood)

west section 2

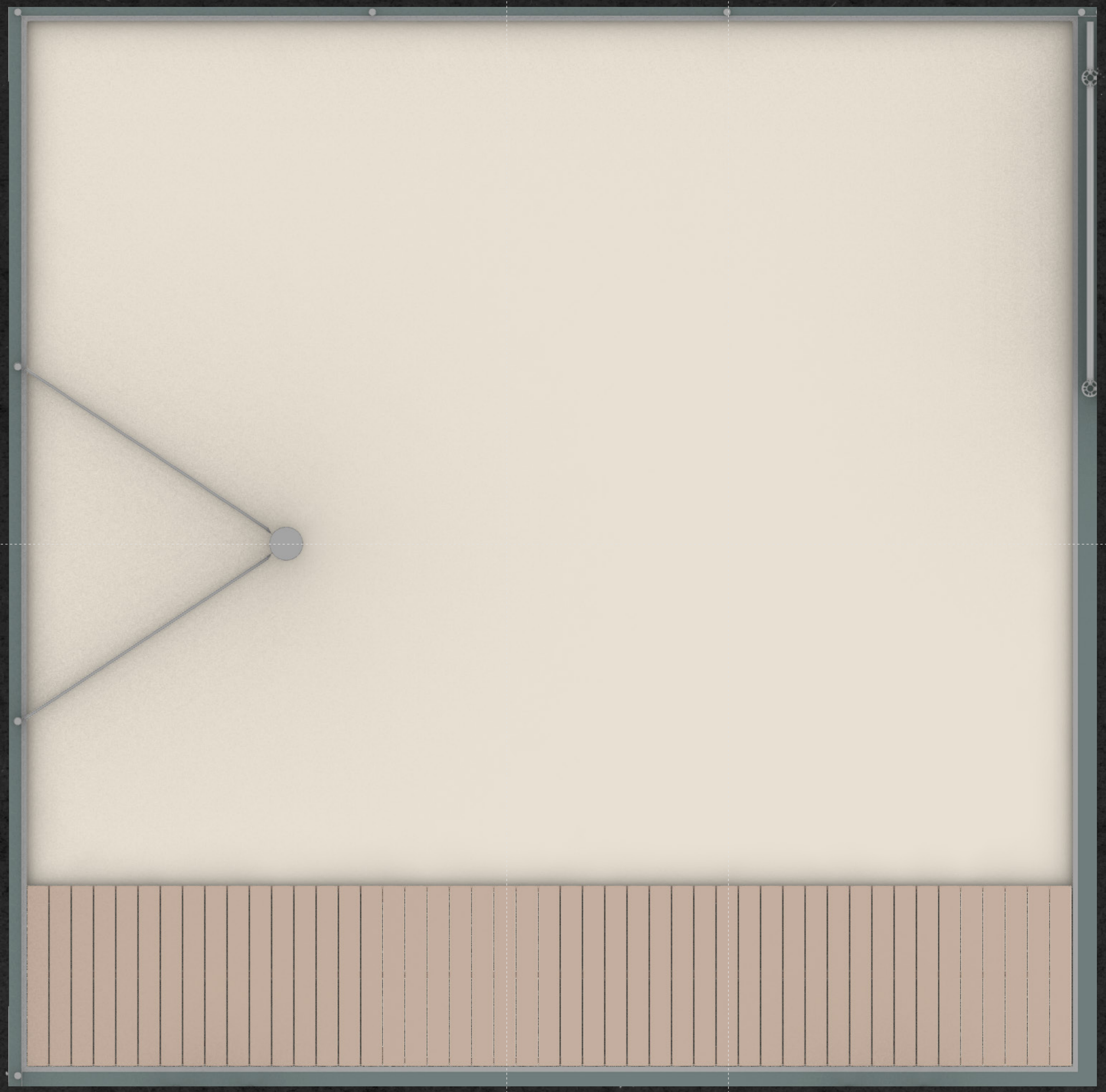

betonplex panelling
reed insulation (visible)
door (recycled)
bench (sheet wood)
betonplex plinth

east section 2

design - silo spa: sauna, beach

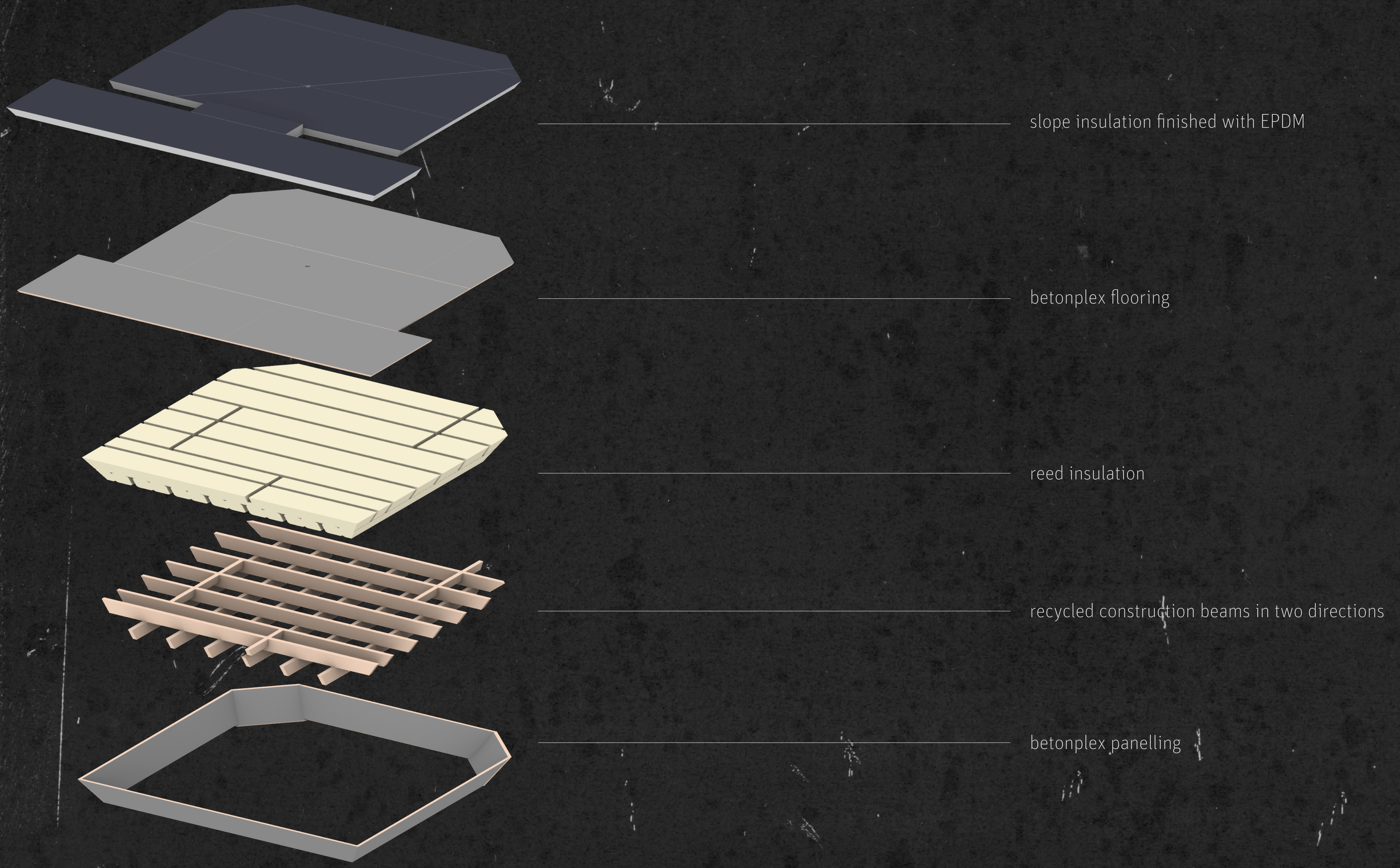


plan level 1



plan level 2

design - silo spa: sauna, beach



slope insulation finished with EPDM

betonplex flooring

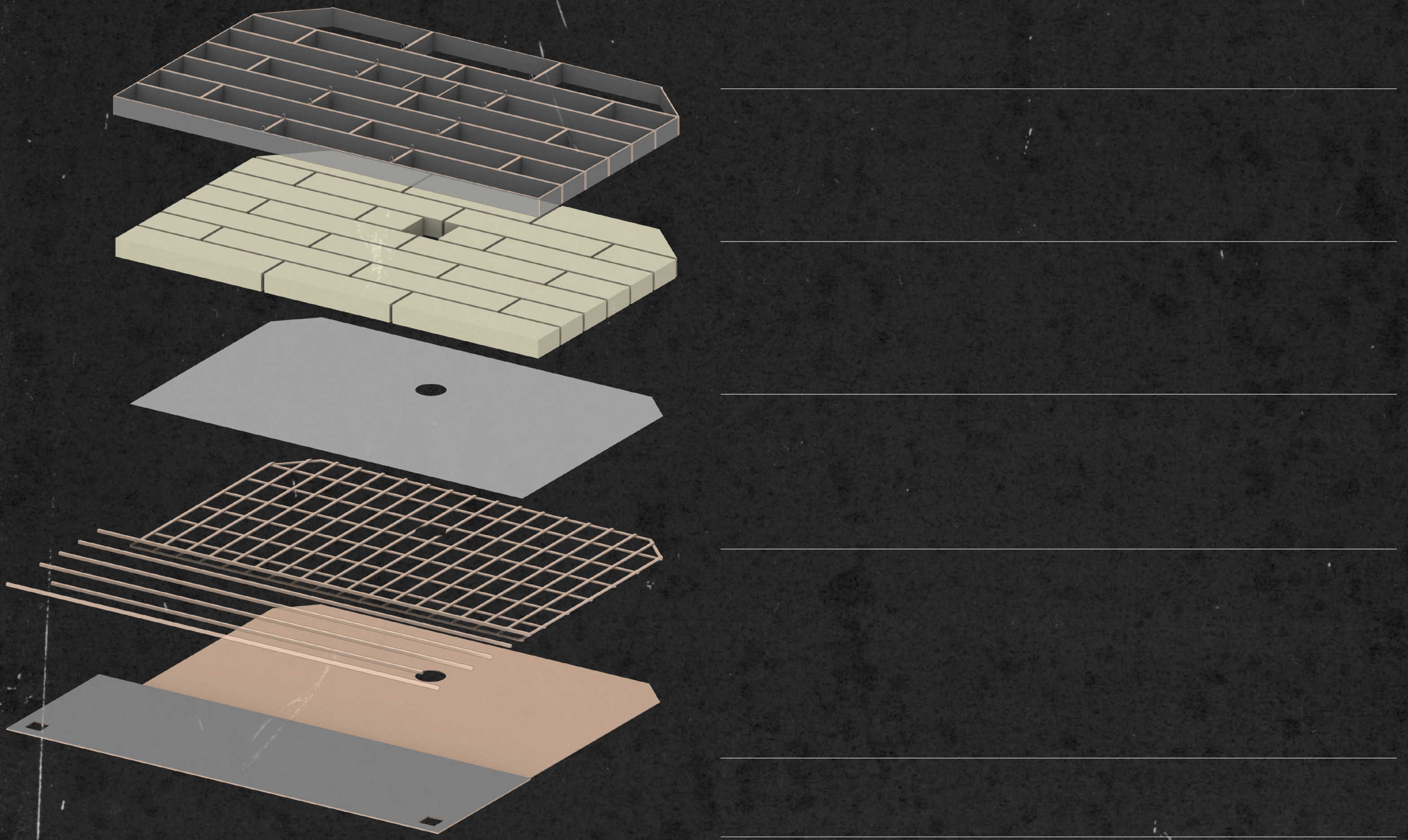
reed insulation

recycled construction beams in two directions

betonplex panelling

axonometry layers floor

design - silo spa: sauna, beach



betonplex framing (boxes)

reed insulation

aluminium foil vapor barier

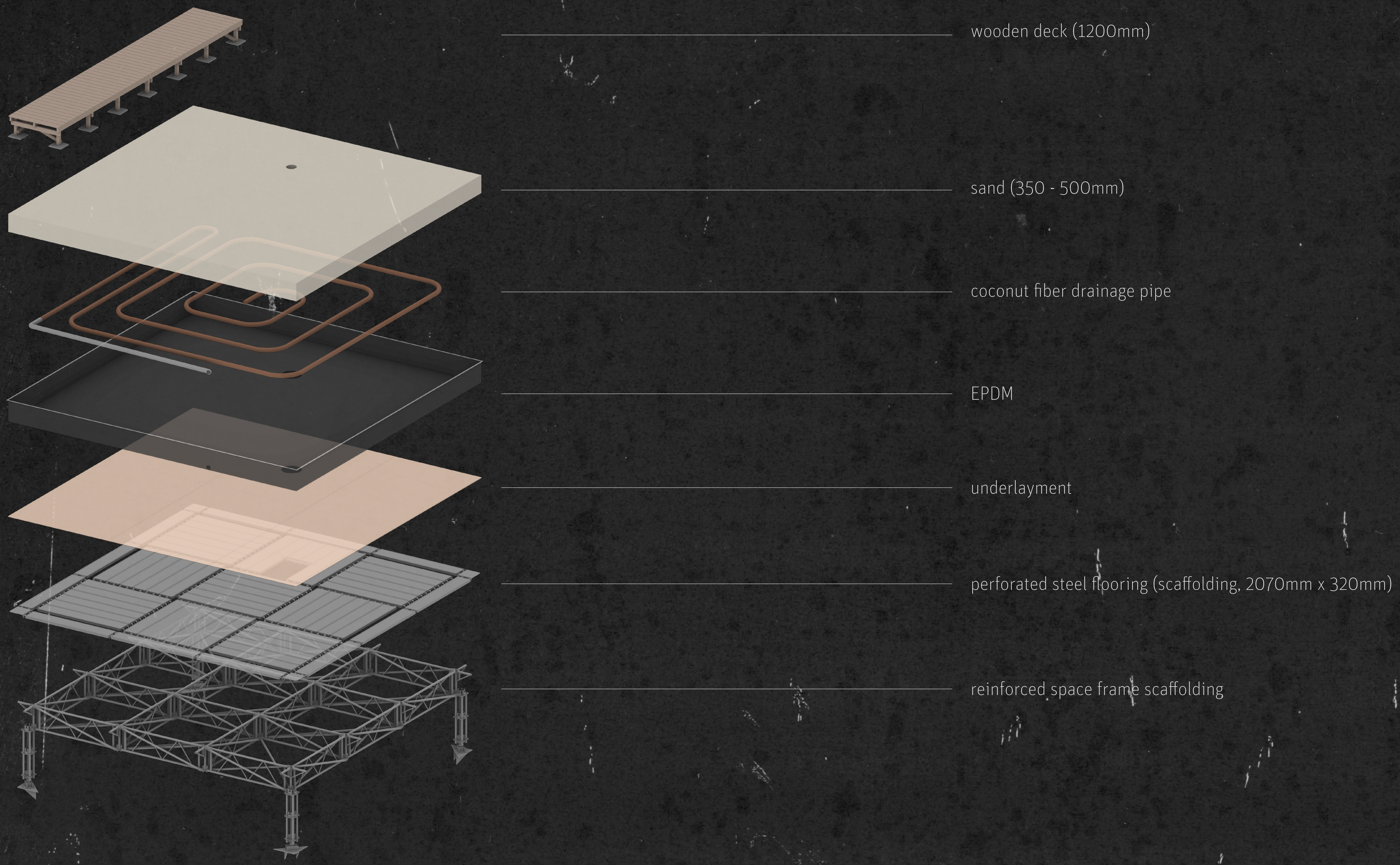
battens

(wooden siding (alder, xxmm)

betonplex panelling

axonometry layers ceiling

design - silo spa: sauna, beach


wooden deck (1200mm)
sand (350 - 500mm)
coconut fiber drainage pipe
EPDM
underlayment
perforated steel flooring (scaffolding, 2070mm x 320mm)
reinforced space frame scaffolding

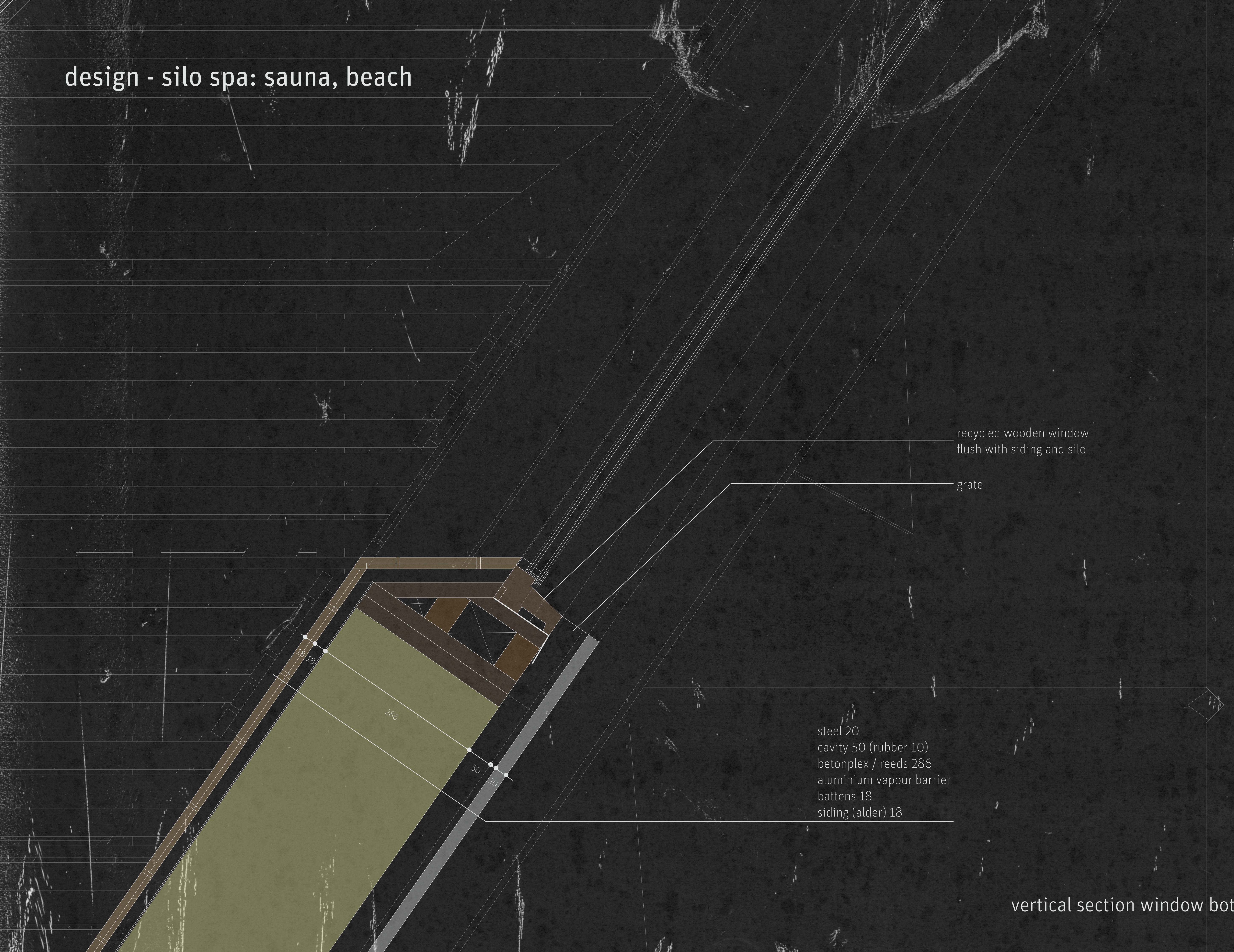
axonometry layers roof

design - silo spa: sauna, beach

aluminium vapor barier
reed insulation
betonplex frame
wooden window
wooden door
benches
wooden siding (alder)
battens

axonometry layers walls

design - silo spa: sauna, beach



recycled wooden window
flush with siding and silo

grate

steel 20
cavity 50 (rubber 10)
betonplex / reeds 286
aluminium vapour barrier
battens 18
siding (alder) 18

vertical section window bottom 1 : 5